Traffic and Parking Study
Proposed Mixed-Use Development

Arlington Heights, Illinois

Prepared For:

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Kenig, Lindgren, O'Hara, Aboona, Inc.

October 18, 2023

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed mixed-use development to be located in Arlington Heights, Illinois. This site is located in the southeast quadrant of the intersection of Algonquin Road (IL 62) with Arlington Heights Road and currently contains the following uses:

- The 125, 135, and 145 Algonquin Road office buildings
- Guitar Center
- The vacant 2335 Arlington Heights Road office building
- A vacant commercial building
- A former drive-through bank
- The vacant/former Applebee's restaurant
- The vacant/former Daily Herald office building

Primary access to the various uses is provided via Tonne Road and its signalized intersection with Algonquin Road. In addition, access is provided via four right-turn in/right-turn out access drives on Arlington Heights Road and four right-turn in/right-turn out access drives on Algonquin Road.

As proposed, the project is to be developed in several phases with Phase 1 of the development to be located in the southeast corner of the Arlington Heights Road/Algonquin Road intersection and to consist of 301 residential units, 25,000 square feet of commercial space, and approximately 558 parking spaces. It should be noted that the development of the future phases of the of the overall development is conceptual at this time as several parcels are under different ownership and any future phases will need to be approved by the Village. Currently, the overall development is anticipated to consist of approximately 901 residential units, a 200-room business hotel, 76,600 square feet of medical office space, 76,600 square feet of general office space, 45,000 square feet of commercial space, and approximately 2,540 parking spaces. Access to Phase 1 and the overall development will be provided via Tonne Road and its signalized intersection with Algonquin Road, via a right-in/right-out access drive on Arlington Heights Road, and via a right-in/right-out access drive on Algonquin Road.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate the traffic generated by the proposed development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and weekday evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system
- Evaluation of the proposed parking supply

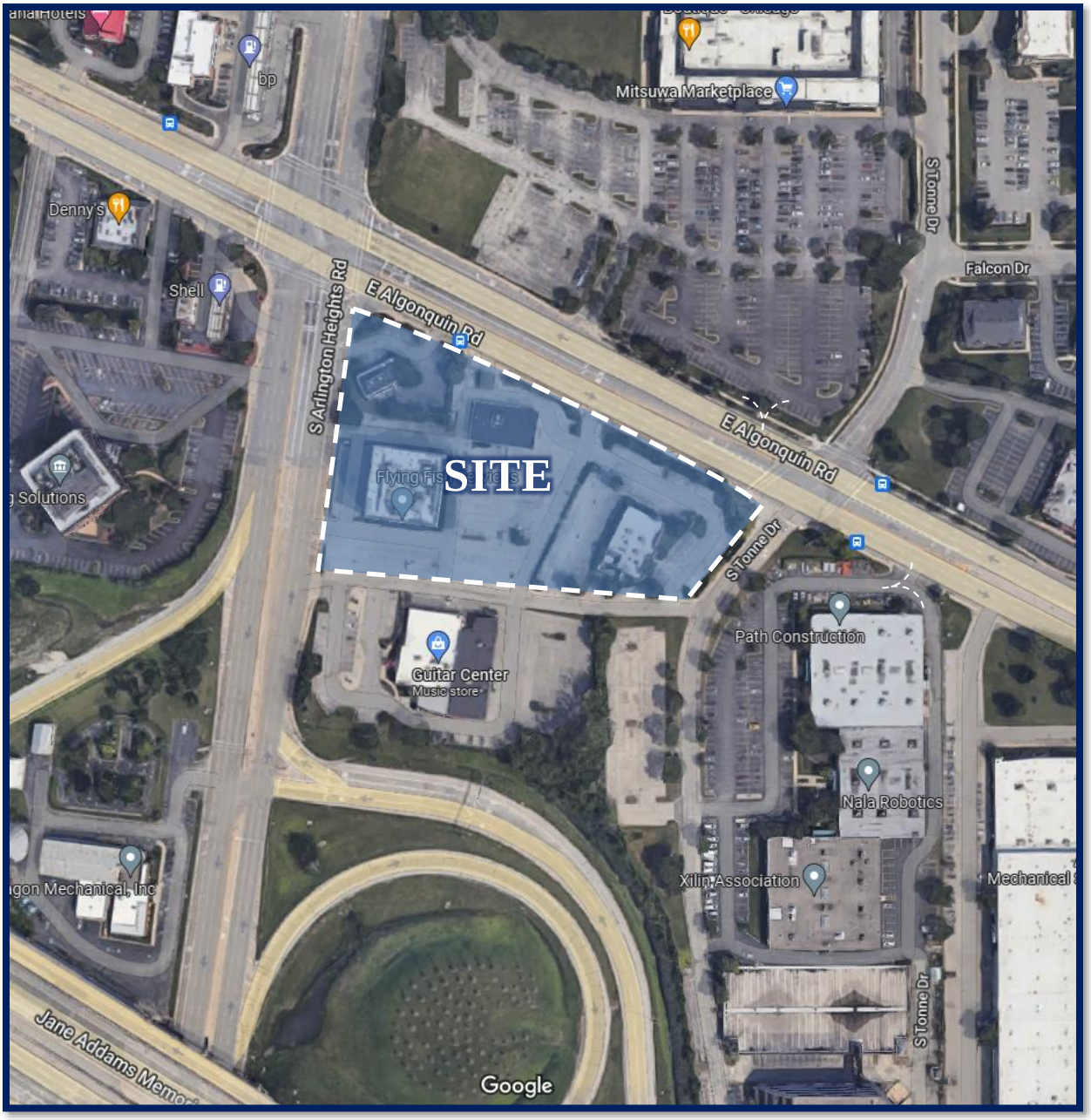
Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.

2. Year 2029 No-Build Conditions – Analyzes the capacity of the future roadway system using the no-build traffic volumes that include the existing traffic volumes, an ambient traffic growth factor, and traffic generated by other area developments.

3. Year 2029 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient traffic growth, traffic generated by other area developments, and the traffic estimated to be generated by the full buildout of the proposed development.

Site Location **Figure 1**



Aerial View of Site **Figure 2**

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

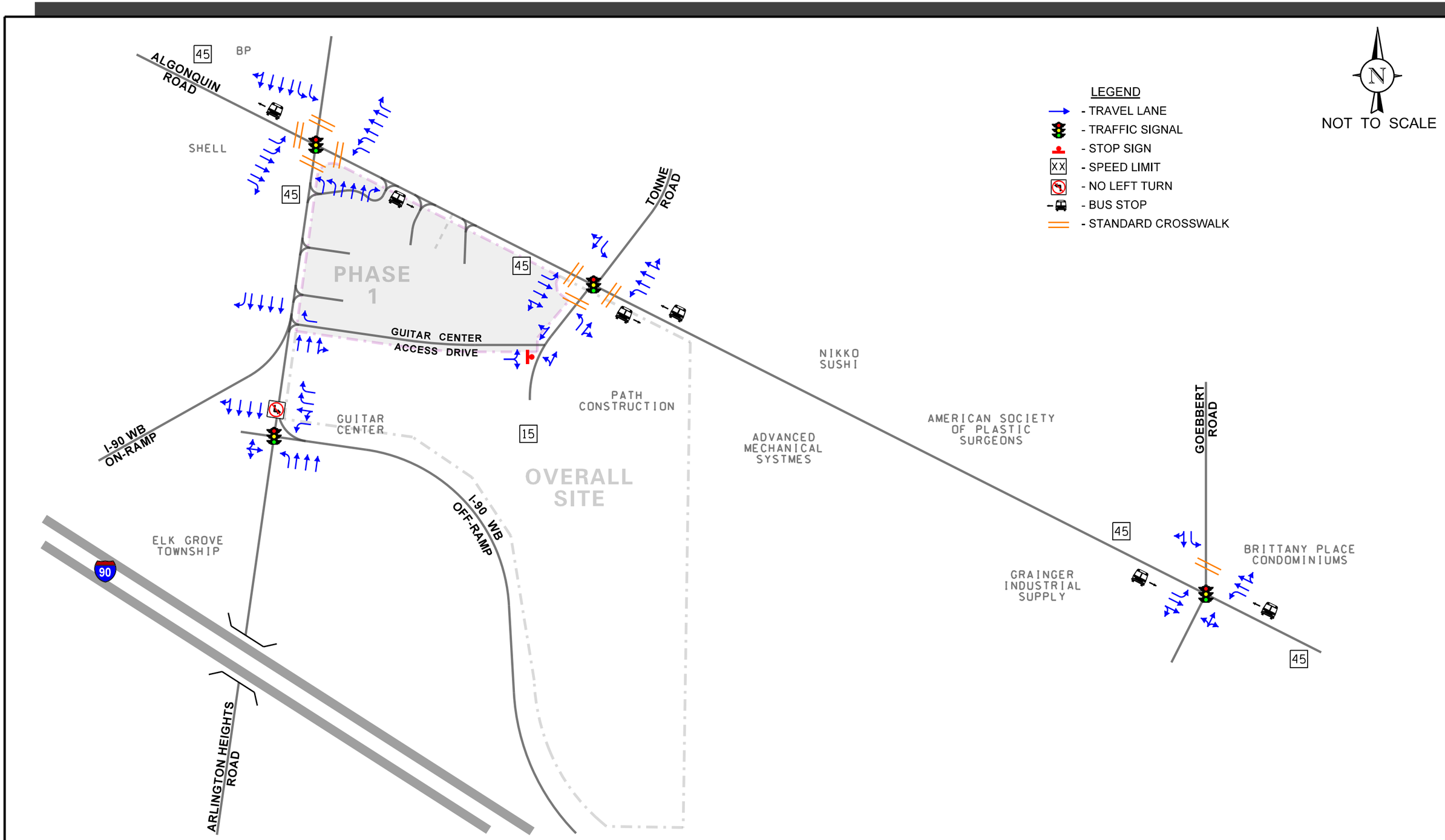
Site Location

The site of the overall development is bounded by Algonquin Road on the north, Arlington Heights Road on the west, I-90 and its interchange with Arlington Heights on the south and west, and an a industrial/warehouse building on the east. Currently, the site contains several office and commercial buildings with most of the buildings currently vacant. Land uses in the vicinity of the site are primarily commercial and office. Office developments are located west of the site on the west side of Arlington Heights Road.

Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below and illustrated in **Figure 3**.

Algonquin Road (IL 62) is a southeast-to-northwest, minor arterial roadway that provides three lanes in each direction between Arlington Heights Road and Tonne Road and provides two lanes in each direction between Tonne Road and Goebbert Road. At its signalized intersection with Arlington Heights Road, Algonquin Road provides dual left-turn lanes, three through lanes, and an exclusive right-turn lane on the eastbound and westbound approaches. Crosswalks and pedestrian signals are provided on the eastbound and westbound approaches of this intersection. At its signalized intersection with Tonne Road, Algonquin Road provides an exclusive left-turn lane, two through lanes, and a shared through/right-turn lane on the eastbound and westbound approaches. Crosswalks and pedestrian signals are present on the eastbound and westbound approaches of this intersection. At its signalized intersection with Goebbert Road, Algonquin Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the eastbound and westbound approaches. Algonquin Road is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an Annual Average Daily Traffic (AADT) volume of 17,100 vehicles east of Arlington Heights Road and 24,000 vehicles west of Arlington Heights Road (IDOT 2021), and has a posted speed limit of 45 miles per hour in the vicinity of the site.



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EXISTING ROADWAY CHARACTERISTICS

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Arlington Heights Road is a is a north-south, minor arterial roadway that provides three lanes in each direction. At its signalized intersection with Algonquin Road, Arlington Heights Road provides dual left-turn lanes, three through lanes, and an exclusive right-turn lane on the northbound approach and dual left-turn lanes, three through lanes, and a shared through/right-turn lane on the southbound approach. Crosswalks and pedestrian signals are provided on the northbound and southbound approaches of this intersection. At its signalized intersection with the I-90 exit ramp, Arlington Heights Road provides an exclusive left-turn lane, two through lanes, and a shared through/right-turn lane on the northbound approach and three through lanes and a shared through/right-turn lane on the southbound approach. Arlington Heights Road is under the jurisdiction of IDOT, carries an AADT volume of 26,700 vehicles north of Algonquin Road and 38,800 vehicles south of Algonquin Road (IDOT 2021), and has a posted speed limit of 35 miles per hour in the vicinity of the site.

Tonne Road is generally a north-south, local roadway that provides one lane in each direction and currently extends through the subject site. At its signalized intersection with Algonquin Road, Tonne Road provides an exclusive left-turn lane and a shared through/right-turn lane on the northbound and southbound approaches. Crosswalks and pedestrian signals are present on both northbound and southbound approaches of this intersection. Tonne Road is under the jurisdiction of the Village of Arlington Heights.

Goebbert Road is a is a north-south, local roadway that provides one lane in each direction. At its signalized intersection with Algonquin Road, Goebbert Road provides an exclusive left-turn lane and a shared through/right-turn lane on the southbound approach and a shared left-turn/through/right-turn lane on the northbound approach. Goebbert Road is under the jurisdiction of the Village of Arlington Heights.

Interstate 90 Exit Ramp (I-90) provides two lanes along the exit ramps. At its signalized intersection with Arlington Heights Road, the I-90 exit ramp provides an exclusive left-turn lane, a shared through/left-turn lane, and dual right-turn lanes. The I-90 exit ramp is under the jurisdiction of IDOT, carries an AADT volume of 9,200 vehicles (IDOT 2020), and has a posted speed limit of 35 miles per hour.

Traffic Signal Interconnect

The signalized intersections of Arlington Heights Road with Algonquin Road, Algonquin Road with Tonne Road, and Algonquin Road with Goebbert Road are part of a twenty-one-signal coordinated system. The signals are interconnected along Arlington Heights Road from IL 72 (Higgins Road) to Central Road, along Golf Road from New Wilke Road to Busse Road, and along Algonquin Road from the Loews access drive to Goebbert Road.

Public Transportation

The study area is also served by Pace Suburban Bus Route 606 which provides daily service between the Rosemont CTA station and Woodfield Corporate Center and serves Woodfield Mall and business and commercial areas in Schaumburg, Arlington Heights, Rolling Meadows, and Mount Prospect. The bus route has several bus stops along Algonquin Road within the vicinity of the site. Notable stops include the Arlington Heights Road with Algonquin Road intersection and the Tonne Road with Algonquin Road intersection in addition to the Goebbert Road with Algonquin Road intersection.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period vehicle, pedestrian, and bicycle counts utilizing Miovision Scout Collection Units at the following intersections:

- Algonquin Road with Arlington Heights Road
- Algonquin Road with Tonne Road
- Algonquin Road with Goebbert Road
- Arlington Heights Road with the I-90 westbound off ramp
- Arlington Heights Road with the commercial access drives

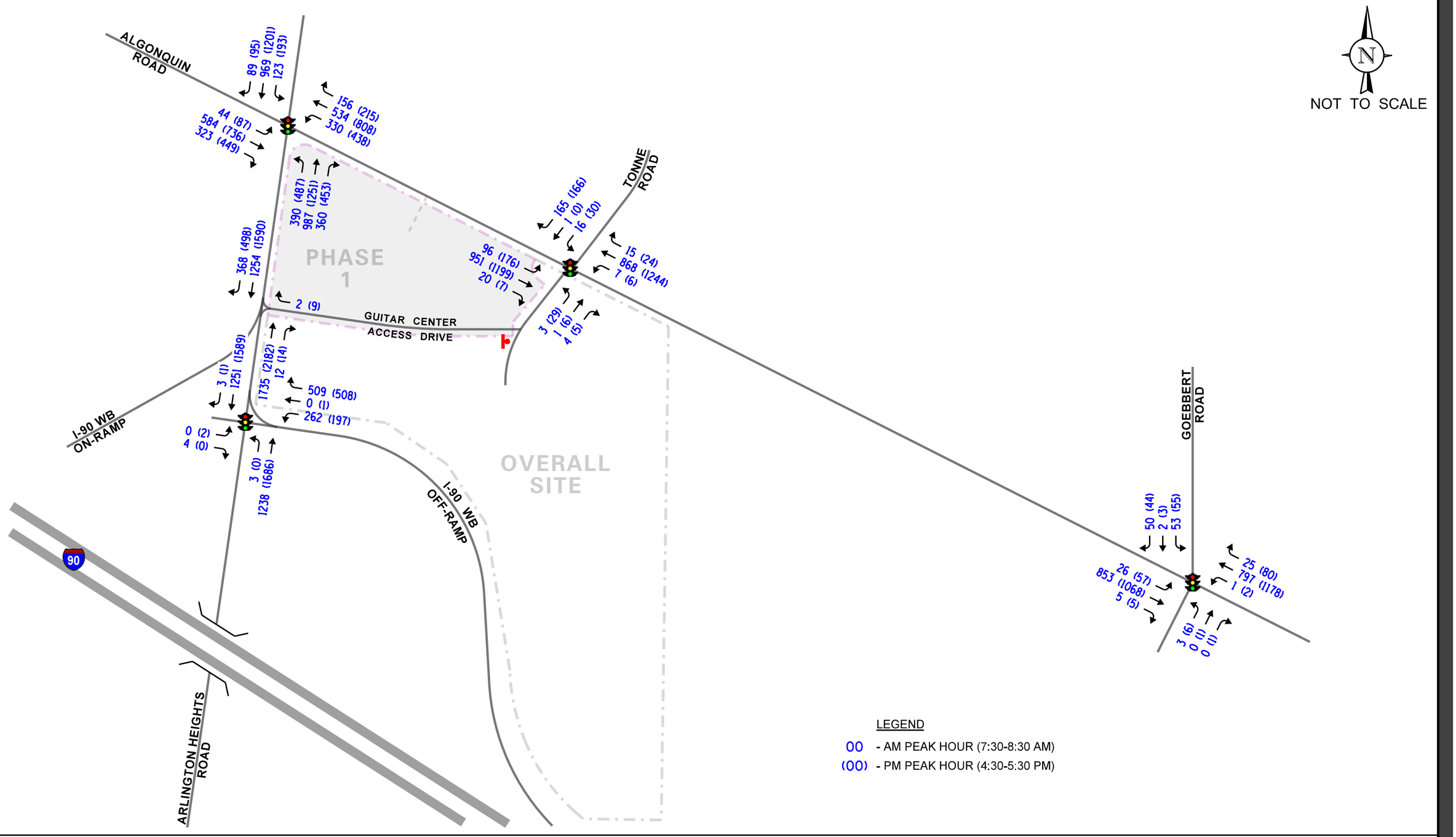
The traffic counts were generally performed on Thursday, June 16, 2022, during the weekday morning (7:00 to 9:00 A.M.) and weekday evening (4:00 to 6:00 P.M.) peak periods. In addition, updated traffic counts were performed on Thursday, May 11, 2023 at the Algonquin Road/Arlington Heights Road and Algonquin Road/Tonne Road intersections. The results of the traffic counts indicated that the weekday morning peak hour of traffic occurs from 7:30 A.M. to 8:30 A.M. and the weekday evening peak hour of traffic occurs from 4:30 P.M. to 5:30 P.M. It should be noted that the bicycle and pedestrian activity at any of the intersections was very low.

Figure 4 illustrates the existing peak hour traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.

Crash Data Summary

KLOA, Inc. obtained crash data[1] for the most recent available past five years (2017 to 2021) for the intersections of Algonquin Road with Arlington Heights Road, Algonquin Road with Tonne Road, and Algonquin Road with Goebbert Road. The crash data for the intersections are summarized in **Tables 1** through **3**. A review of the crash data indicated that no fatalities were reported at the study area intersections between 2017 and 2021.

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. The author is responsible for any data analyses and conclusions drawn.



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EXISTING TRAFFIC VOLUMES

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Table 1
ALGONQUIN ROAD WITH ARLINGTON HEIGHTS ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	0	0	0	19	4	6	0	29
2018	0	0	0	20	1	11	0	32
2019	2	0	1	10	0	2	1	16
2020	0	0	0	18	3	4	1	26
2021	0	0	0	9	0	3	0	12
Total	**2**	**0**	**1**	**76**	**8**	**27**	**2**	**115**
Average	**<1.0**	**--**	**<1.0**	**15.2**	**1.6**	**5.4**	**<1.0**	**23.0**

Table 2
ALGONQUIN ROAD WITH TONNE ROAD– CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	1	0	0	6	0	8	0	15
2018	0	0	0	2	0	2	0	4
2019	0	0	0	2	0	2	0	4
2020	0	0	0	2	0	1	0	3
2021	0	0	0	1	0	2	0	3
Total	**1**	**0**	**0**	**13**	**0**	**15**	**0**	**29**
Average	**<1.0**	**--**	**--**	**2.6**	**--**	**3.0**	**--**	**5.8**

Table 3
ALGONQUIN ROAD WITH GOEBBERT ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	1	0	1	1	0	3	0	6
2018	2	0	0	2	0	0	0	4
2019	0	0	0	1	0	1	0	2
2020	0	0	0	1	0	0	0	1
2021	0	0	0	2	0	1	0	3
Total	**3**	**0**	**1**	**7**	**0**	**5**	**0**	**16**
Average	**<1.0**	**--**	**<1.0**	**1.4**	**--**	**1.0**	**--**	**3.2**

3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Site and Development Plan

As proposed, the project is to be developed in several phases with Phase 1 of the development to be located in the southeast corner of the Arlington Heights Road/Algonquin Road intersection and to consist of 301 residential units, 25,000 square feet of commercial space, and approximately 558 parking spaces. As discussed previously, the development of the future phases of the of the overall development is conceptual at this time as several parcels are under different ownership and any future phases will need to be approved by the Village. Currently, the overall development is anticipated to consist of approximately 901 residential units, a 200-room business hotel, 76,600 square feet of medical office space, 76,600 square feet of general office space, 45,000 square feet of commercial space, and approximately 2,540 parking spaces. Access to Phase 1 and the overall development will be provided via the following:

- Primary access to Phase 1 and the overall development will be provided via Tonne Road and its signalized intersection with Algonquin Road. Both approaches of Tonne Road provide a separate left-turn lane and shared through/right-turn lane. In addition, a separate left-turn lane is provided on both approaches of Algonquin Road serving Tonne Road.

- Secondary access to the development will be provided via a restricted right-turn in/right-turn out access road on Arlington Heights Road located approximately 785 feet south of Algonquin Road. As proposed, the two-lane access road is to extend from Arlington Heights Road to Tonne Road and will provide access to the Phase 1 and 3 buildings. At its intersection with Arlington Heights Road, the access road should provide one inbound lane and one outbound lane that will be restricted to right-turn movements only due to the barrier median along Arlington Heights Road. The outbound lane will be under stop sign control. It is important to note that the access road will replace the four existing right-turn in/right-turn out access drives serving the site. Further, the access road will be under stop sign control at its intersection with Tonne Road.

- Secondary access to the development will be provided via a restricted right-turn in/right-turn out access drive on Algonquin Road located approximately 420 feet southeast of Arlington Heights Road. At its intersection with Algonquin Road, the access drive should provide one inbound lane and one outbound lane that will be restricted to right-turn movements only due to the barrier median along Algonquin Road. The outbound lane will be under stop sign control. It is important to note that the access road will replace the four existing right-turn in/right-turn out access drives serving the site.

- Access to the Phase 2 and 4 buildings will be provided via three access drives located on the east side of Tonne Road. Each access drive should provide a minimum of one inbound lane and one outbound lane with the outbound lane under stop sign control.

- Access to the Phase 1 and 3 buildings will be provided via several access drives located on the east-west circulation road. Each access drive should provide a minimum of one inbound lane and one outbound lane with the outbound lane under stop sign control.

A copy of the site plan is included in the Appendix.

Directional Distribution

The directions from which residents, patrons, and employees will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the development-generated traffic.

Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed development was based on the following vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE):

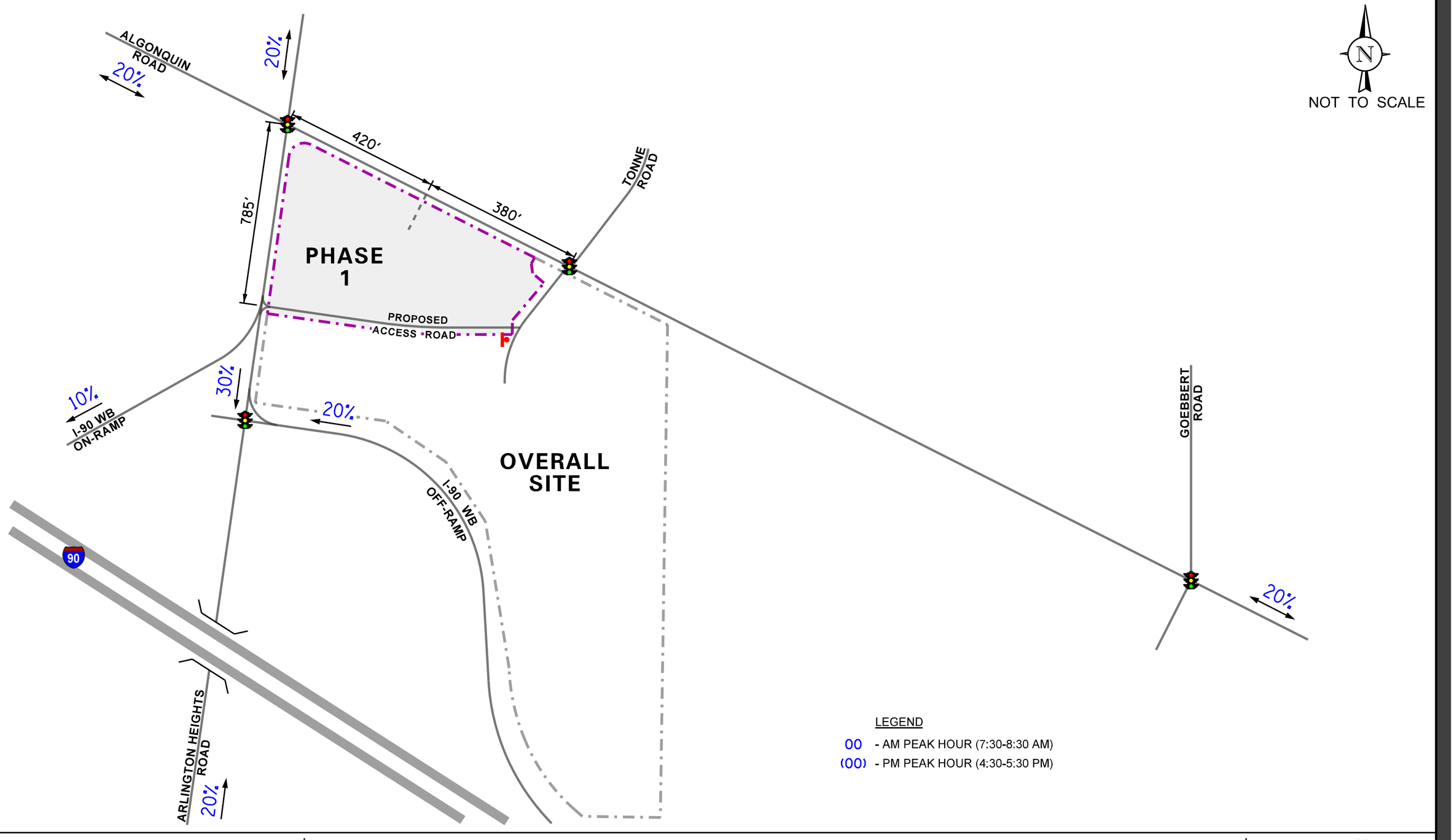
- The Multifamily Housing – Mid Rise (ITE Land-Use Code 221) trip rates were utilized for the proposed residential units.
- The Strip Retail Plaza (<40k) (ITE Land-Use Code 822) trip rates were utilized for the proposed ground floor retail space.
- The General Office Building (ITE Land-Use Code 710) trip rates were utilized for the proposed general office space.
- The Medical-Dental Office Building (ITE Land-Use Code 720) trip rates were utilized for the proposed medical office space.
- The Business Hotel (ITE Land-Use Code 312) trip rates were utilized for the proposed business hotel.

It is important to note that the traffic to be generated by the development was reduced to account for the following factors:

- The current traffic generated by the various uses that occupy the site will be eliminated with the full buildout of the development and, as such, was subtracted from the total traffic to be generated by the overall development.

- The traffic to be generated by the office and commercial portions of the development was reduced by 10 percent to account for the interaction and multi-purpose trips that will be generated by the mixed-use development.

- The traffic to be generated by the commercial portion of the overall development was reduced by 20 percent to account for pass-by trips that will be generated by the mixed-use development.



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ARLINGTON HEIGHTS, ILLINOIS

DIRECTIONAL DISTRIBUTION

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Table 4 summarizes the number of trips estimated to be generated by Phase 1 of the development and the overall development.

Table 4
ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		In	Out	Total	In	Out	Total
Phase 1 of the Development							
221	Multifamily Housing (301 units)	28	93	121	72	46	118
822	Commercial (25,000 sq. ft.)	32	21	53	75	74	149
	Subtotal	60	114	174	147	120	267
	Interaction Reduction[1]	*-3*	*-2*	*-5*	*-8*	*-8*	*-16*
	Total	**57**	**112**	**169**	**139**	**112**	**251**
Total Buildout of the Development							
221	Multifamily Housing (901 units)	89	296	385	215	137	352
312	Business Hotel (200 rooms)	28	44	72	28	40	68
710	General Office (76,600 sq. ft.)	117	16	133	23	110	133
720	Medical Office (76,600 sq. ft.)	150	40	190	93	216	309
822	Commercial (45,000 sq. ft.)	47	31	78	113	113	226
	Subtotal	**431**	**427**	**858**	**472**	**616**	**1,088**
	Interaction Reduction[1]	*-30*	*-9*	*-39*	*-30*	*-55*	*-85*
	Pass-By Reduction[2]	-9	-6	-15	-22	-22	-44
	Existing Traffic Volumes	-40	-10	-50	-23	-44	-67
	Total New Trips	**352**	**402**	**754**	**397**	**495**	**892**

1. Assumes a 10 percent reduction in the traffic generated by the commercial and office portions of the development to account for the interaction and multi-purpose trips to be generated by the overall mixed-use development
2. Assumes a 20 precent reduction in the traffic generated by the commercial portion of the overall mixed-use development to account for pass-by trips.

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that will be generated by Phase 1 of the development and the overall development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of Phase 1 of the development. **Figure 7** illustrates the traffic assignment for the new trips generated by the overall development and **Figure 8** illustrates assignment of the pass-by trips.

Background (No-Build) Traffic Conditions

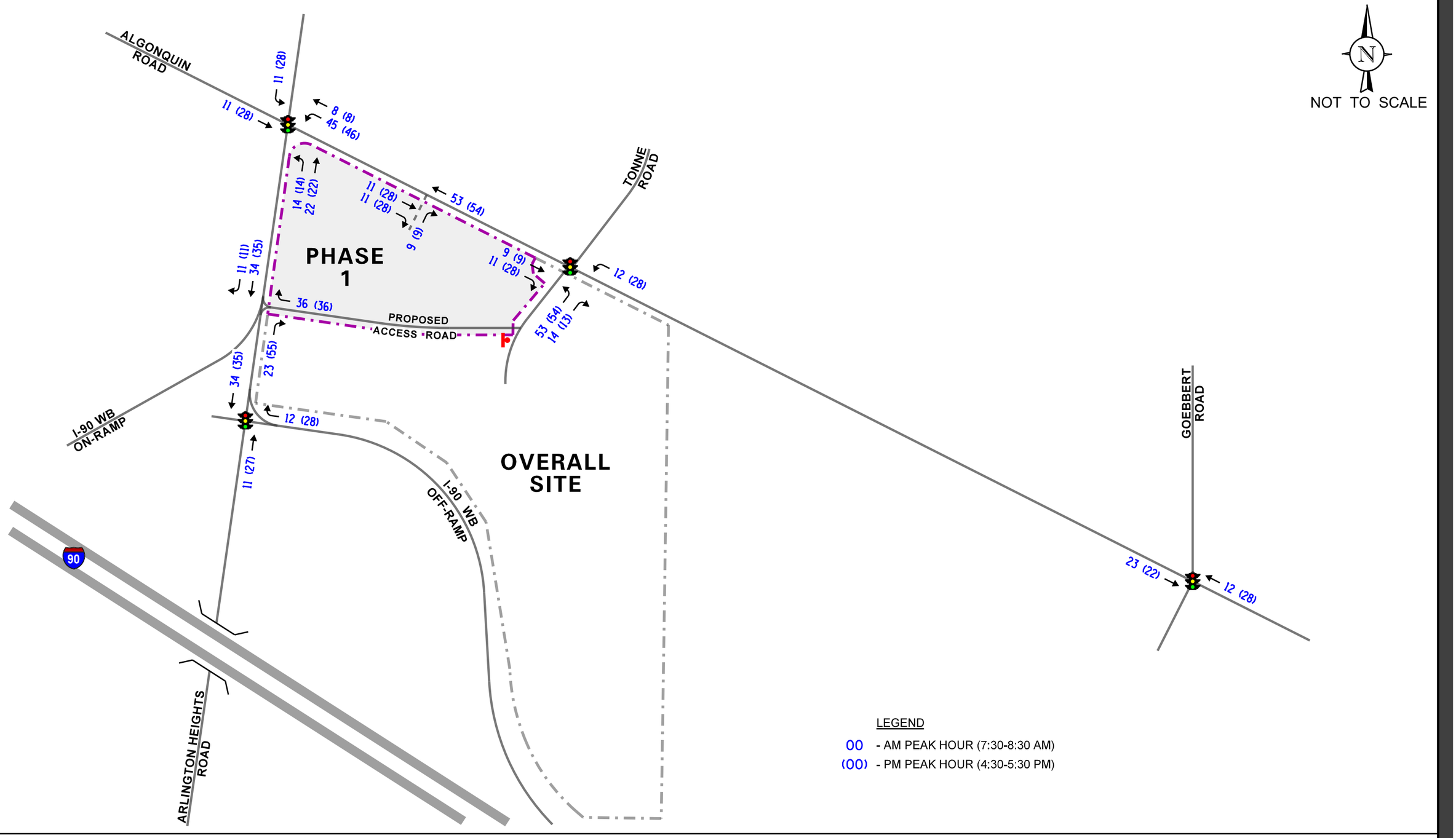
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on Annual Average Daily Traffic (AADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes are projected to increase by an annual compounded growth rate of approximately 0.6 percent. As such, traffic volumes were increased by four percent to represent Year 2029 no-build conditions. A copy of the CMAP projections letter is included in the Appendix.

Additionally, the traffic estimated to be generated by the luxury senior housing development located in the southeast quadrant of the intersection of Arlington Heights Road with Seegers Road and the full buildout of the industrial development located in the southeast quadrant of the intersection of Algonquin Road with Meijer Drive were included in the Year 2029 no-build conditions.

The Year 2029 no-build traffic volumes, which include the existing traffic volumes increased by the regional growth factor and the traffic generated by other area developments, are illustrated in **Figure 9**.

Total Projected Traffic Volumes

The development-generated traffic was added to the existing traffic volumes taking into account background growth and the traffic to be generated by other area developments to determine the Year 2029 projected traffic volumes for Phase 1 of the development (**Figure 10)** and the overall development (**Figure 11**).



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SITE-GENERATED TRAFFIC VOLUMES - PHASE 1

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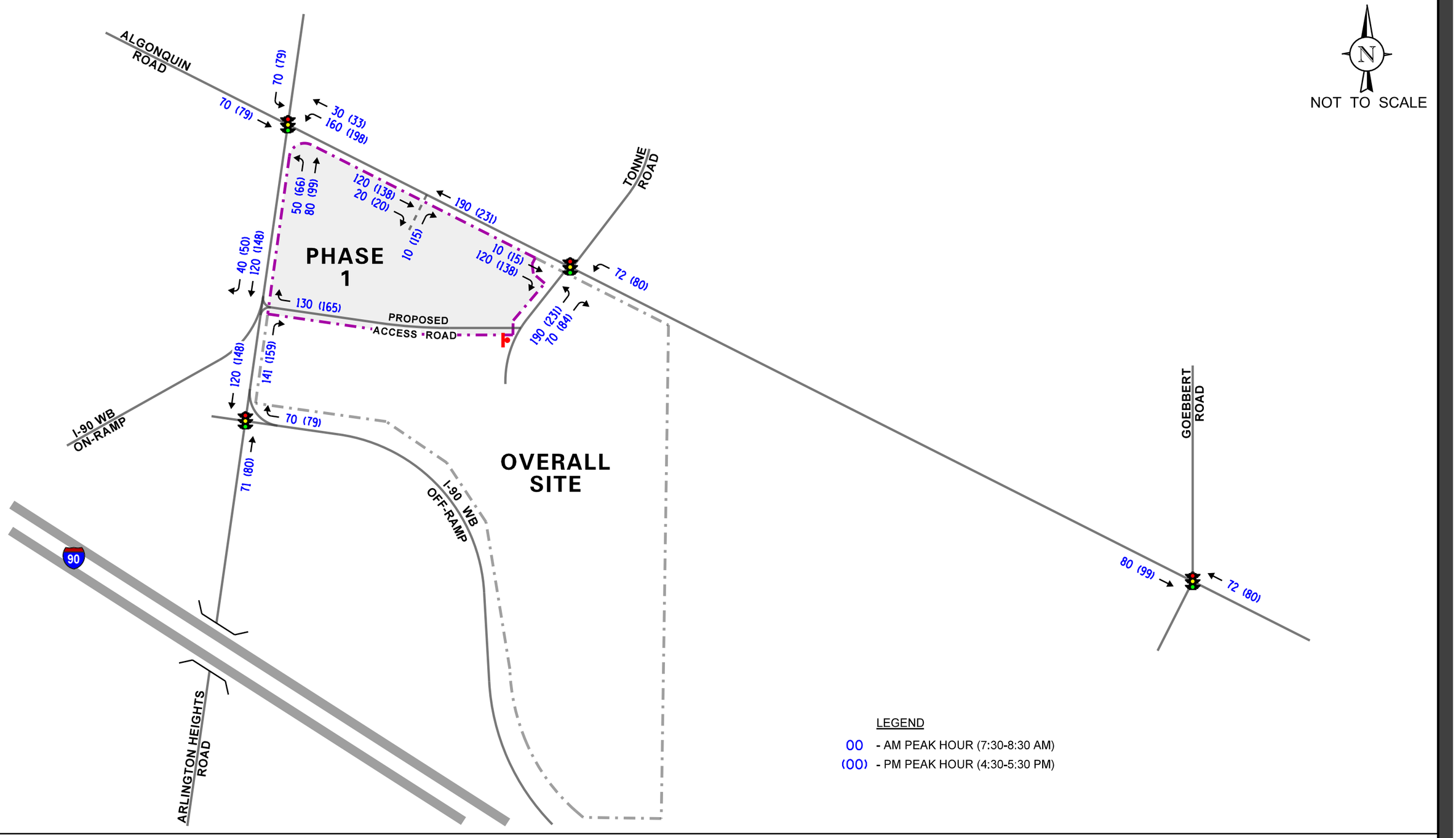

MIXED-USE DEVELOPMENT
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NEW SITE-GENERATED TRAFFIC VOLUMES - OVERALL DEVELOPMENT

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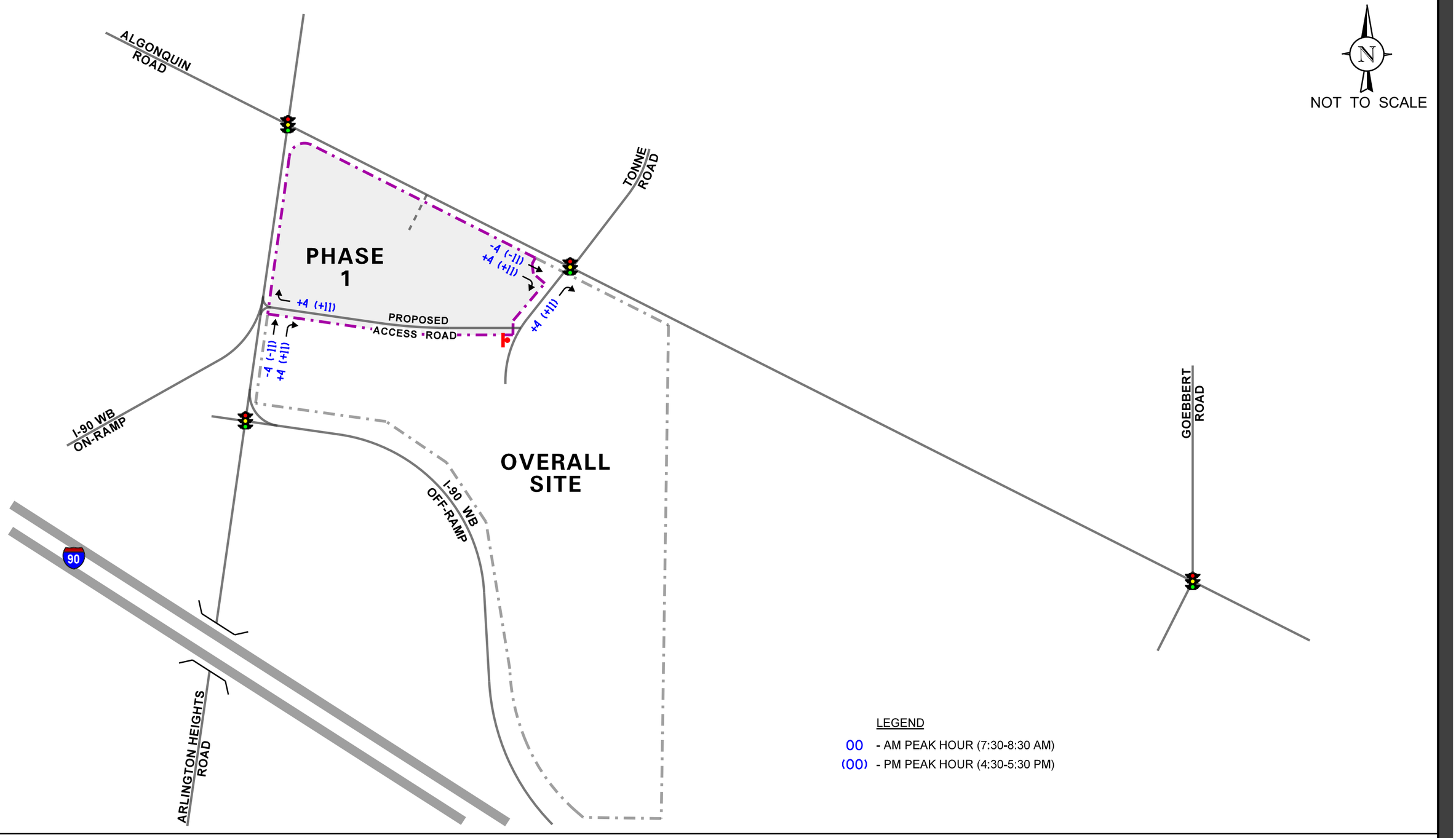

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PASS-BY TRAFFIC VOLUMES - OVERALL DEVELOPMENT

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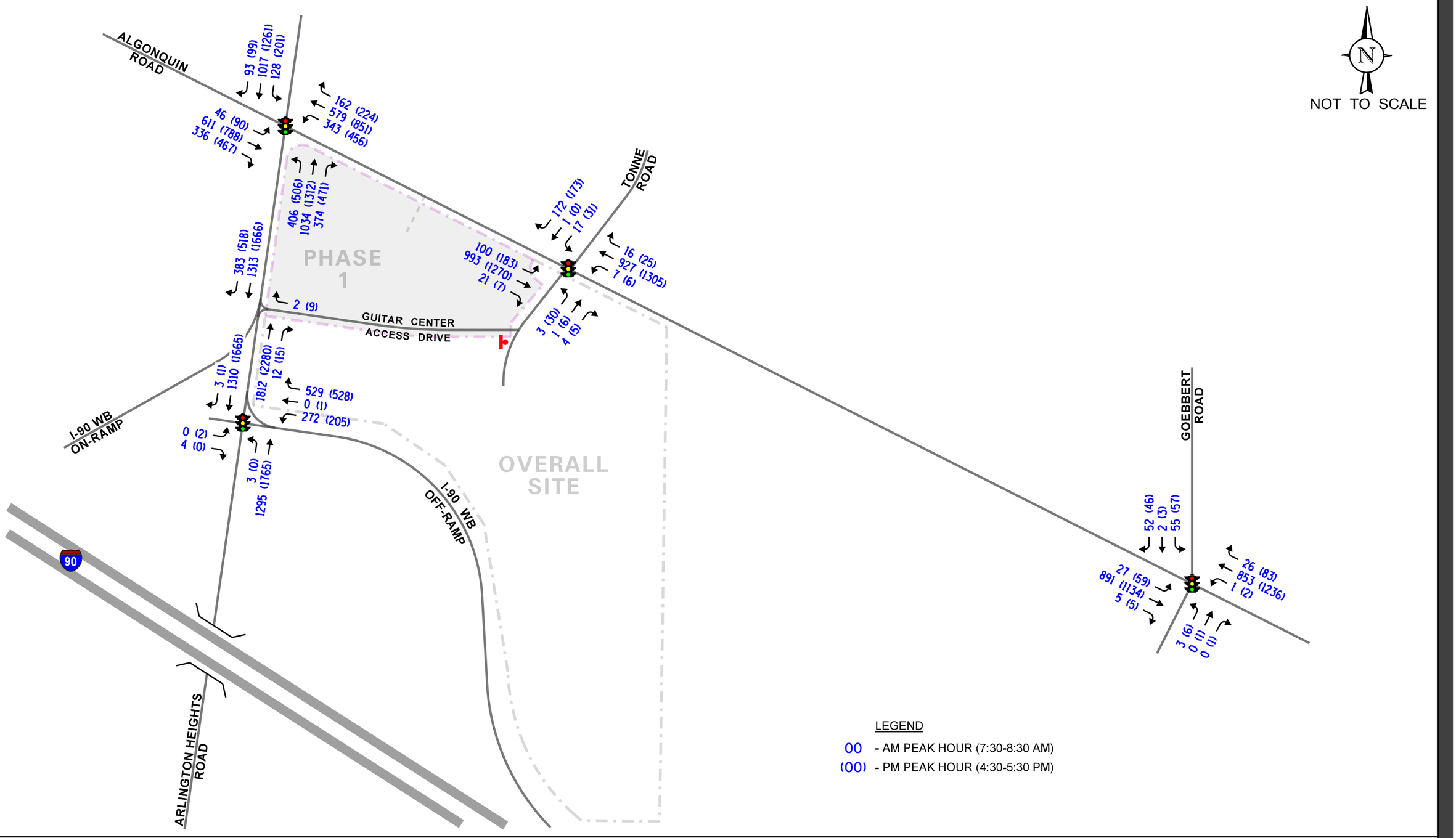

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YEAR 2029 NO-BUILD TRAFFIC VOLUMES

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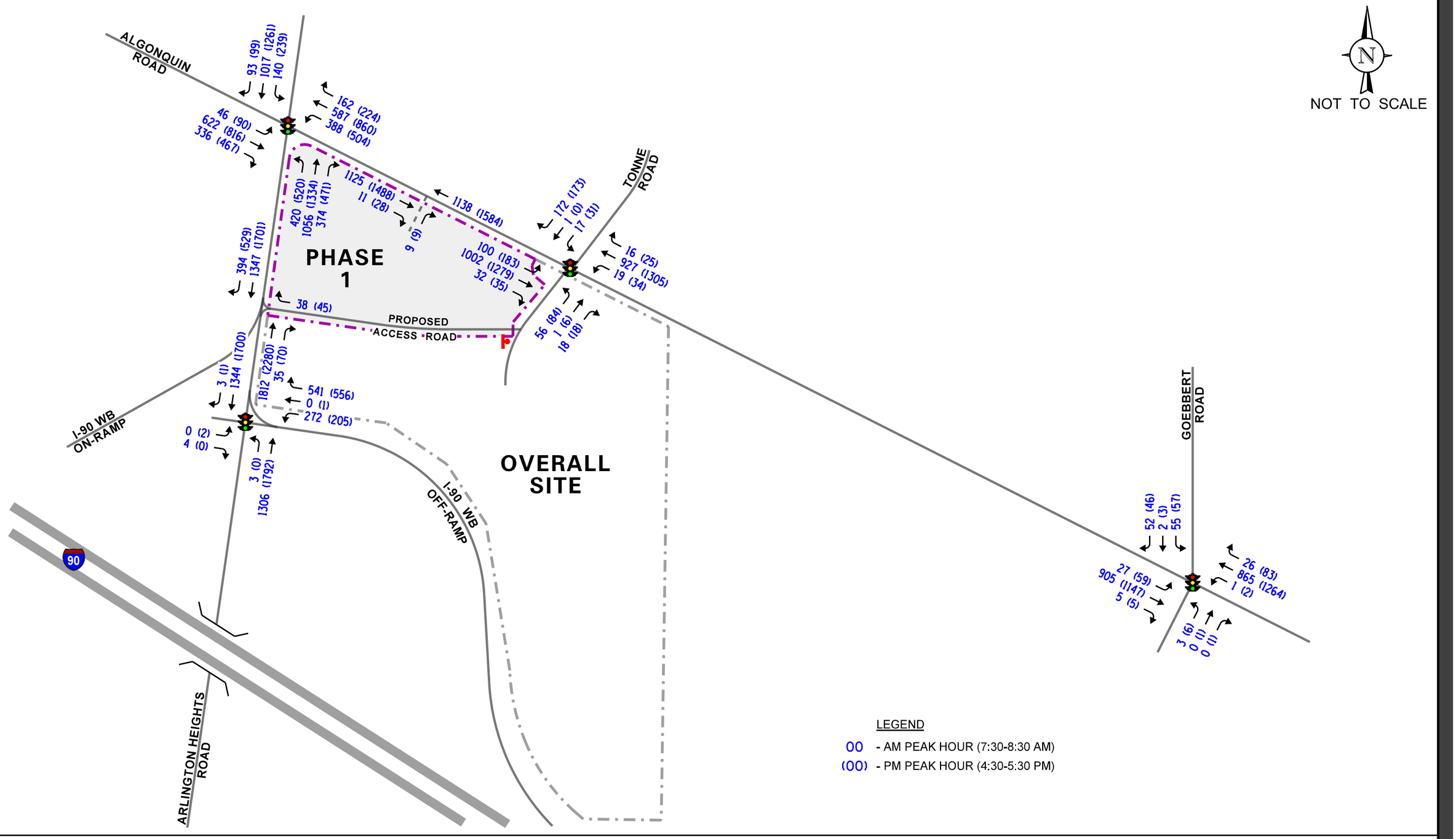

MIXED-USE DEVELOPMENT
ARLINGTON HEIGHTS, ILLINOIS

YEAR 2029 TOTAL TRAFFIC VOLUMES - PHASE 1

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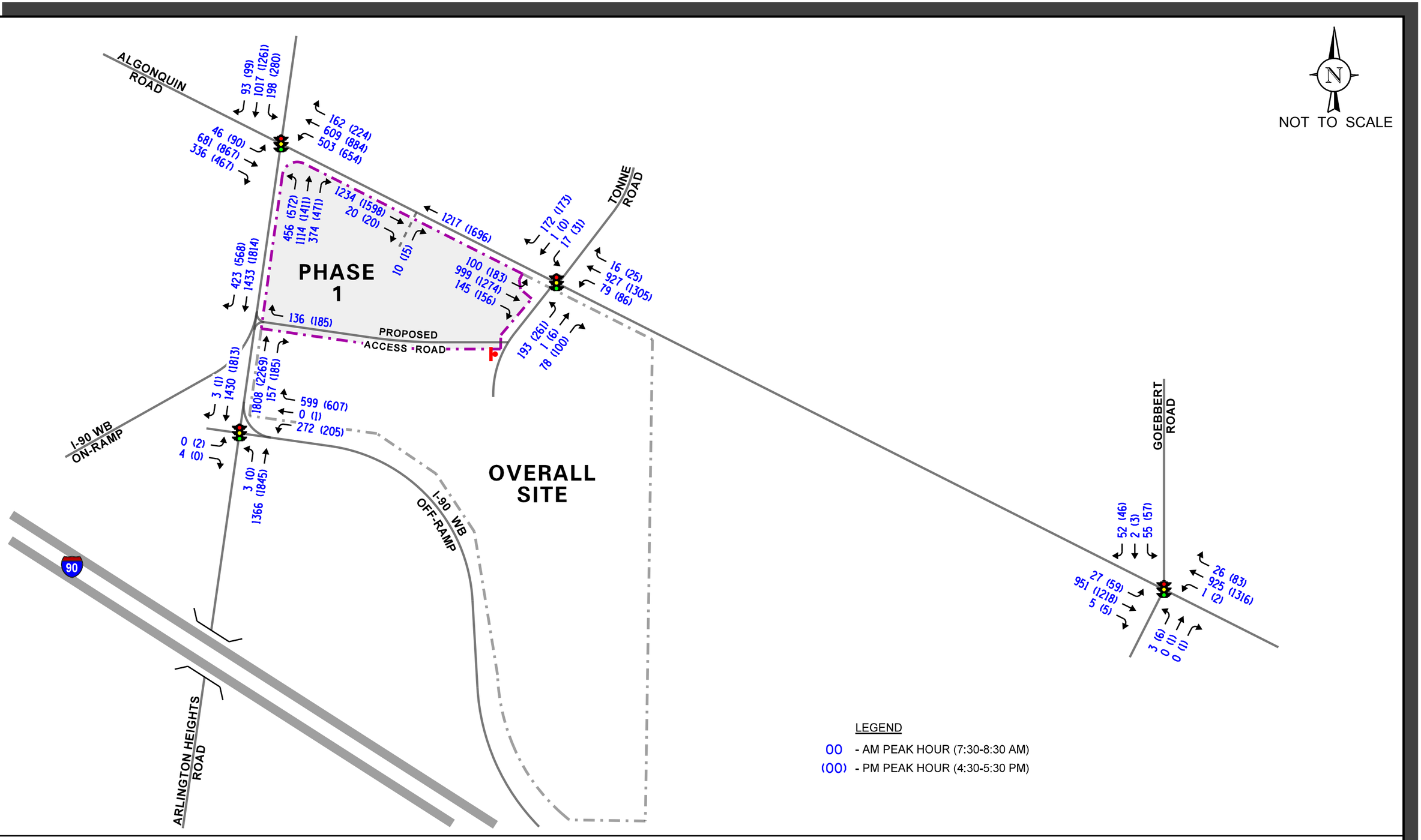

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YEAR 2029 TOTAL TRAFFIC VOLUMES - OVERALL DEVELOPMENT

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5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and evening peak hours for the Year 2023 existing, Year 2029 no-build, and Year 2029 projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6th Edition and analyzed using Synchro/SimTraffic 11 software. The analysis for the traffic-signal controlled intersections, to determine the average overall vehicle delay and levels of service, were accomplished using utilizing actual cycle lengths and phasings.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the base, no-build, and total projected conditions are presented in **Tables 5** through **12**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5
CAPACITY ANALYSIS RESULTS – ALGONQUIN ROAD WITH ARLINGTON HEIGHTS ROAD – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound		Overall
		L	T	R	L	T	R	L	T	R	L	T/R	
Existing Conditions	Weekday Morning	E 72.2	D 53.9	D 35.8	E 64.9	C 33.4	C 24.2	E 78.0	C 22.9	B 12.9	E 75.3	D 40.8	D 40.8
		D – 48.6			D – 42.2			C – 33.2			D – 44.4		
	Weekday Evening	E 74.2	D 53.6	D 35.6	F 88.1	C 33.3	C 20.4	E 57.7	D 38.6	C 27.5	E 76.5	D 53.8	D 47.6
		D – 48.7			D – 47.8			D – 40.6			E – 56.8		
Year 2029 No-Build Conditions	Weekday Morning	E 72.3	D 53.4	D 35.3	E 65.4	C 32.7	C 22.6	E 79.1	C 24.0	B 13.5	E 75.5	D 43.0	D 41.4
		D – 48.1			D – 41.6			C – 34.2			D – 46.4		
	Weekday Evening	E 74.4	D 54.3	D 36.0	F 95.1	C 30.4	B 19.1	E 57.8	D 39.7	C 28.4	E 77.2	E 56.9	D 48.7
		D – 49.3			D – 48.0			D – 41.3			E – 59.5		
Year 2029 Phase I Projected Conditions	Weekday Morning	E 72.3	D 54.1	D 35.4	E 62.4	C 33.4	C 24.1	F 80.3	C 26.3	B 14.0	E 76.2	D 44.8	D 42.7
		D – 48.7			D – 42.0			D – 36.1			D – 48.3		
	Weekday Evening	E 74.4	E 55.1	D 35.9	F 96.6	C 29.8	B 18.6	E 59.0	D 41.7	C 29.0	F 81.7	E 58.6	D 50.3
		D – 49.9			D – 49.4			D – 43.0			E – 62.1		
Year 2029 Total Buildout Projected Conditions	Weekday Morning	E 72.3	E 55.9	D 35.3	E 64.8	C 27.8	C 19.6	F 82.0	C 29.5	B 14.0	F 83.6	D 48.8	D 45.1
		D – 50.1			D – 41.4			D – 38.8			D – 54.0		
	Weekday Evening	E 74.4	E 56.9	D 35.5	F 99+	C 29.5	B 18.7	E 66.2	D 44.5	C 29.2	F 90.0	E 62.6	E 57.4
		D – 51.0			E – 68.4			D – 45.1			E – 67.3		

Letter denotes Level of Service
Delay is measured in seconds.
L – Left Turn
T – Through
R – Right Turn

Table 6
CAPACITY ANALYSIS RESULTS – ALGONQUIN ROAD WITH TONNE ROAD – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Existing Conditions	Weekday Morning	A 5.5	A 5.4	A 4.1	B 11.0	D 51.3	D 51.0	D 52.9	E 79.1	B 13.9
		A – 5.4		B – 10.9		D – 51.1		E – 76.8		
	Weekday Evening	B 15.4	A 2.9	A 1.5	A 3.0	E 68.3	E 62.0	E 68.3	E 77.8	A 7.1
		A – 4.5		A – 3.0		E – 66.7		E – 74.8		
Year 2029 No-Build Conditions	Weekday Morning	A 6.1	A 5.4	A 4.6	A 9.8	D 51.0	D 50.6	D 52.6	E 79.8	B 13.5
		A – 5.5		A – 9.8		D – 50.8		E – 77.5		
	Weekday Evening	C 24.9	A 4.1	A 2.0	A 5.8	E 67.9	E 55.8	E 58.8	F 92.8	B 12.5
		A – 6.7		A – 5.8		E – 64.8		F – 87.7		
Year 2029 Phase I Projected Conditions	Weekday Morning	A 5.8	A 6.5	A 4.3	A 9.6	E 73.5	D 53.1	D 52.7	E 79.8	B 15.4
		A – 6.4		A – 9.5		E – 68.3		E – 77.5		
	Weekday Evening	C 25.0	A 5.2	A 2.6	A 5.8	F 99+	E 57.4	E 58.7	F 91.3	B 15.4
		A – 7.6		A – 5.7		F – 99+		F – 86.3		
Year 2029 Total Buildout Projected Conditions	Weekday Morning	A 7.5	B 11.4	A 7.4	B 11.8	F 99+	D 54.2	D 50.5	E 58.8	C 22.6
		B – 11.1		B – 11.4		F – 92.8		E – 58.1		
	Weekday Evening	C 24.6	A 5.6	A 5.7	A 6.2	F 99+	E 71.1	E 59.9	F 84.8	E 67.6
		A – 7.7		A – 6.2		F – 99+		F – 81.0		

Letter denotes Level of Service
Delay is measured in seconds.
L – Left Turn
T – Through
R – Right Turn

Table 7
CAPACITY ANALYSIS RESULTS – ALGONQUIN ROAD WITH GOEBBERT ROAD – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound	Southbound		Overall
		L	T/R	L	T/R	L/T/R	L	T/R	
Existing Conditions	**Weekday Morning**	A 3.0	A 4.9	A 5.0	A 4.9	E – 61.0	E 79.0	E 74.7	A 9.1
		A – 4.8		A – 4.9			E – 76.9		
	Weekday Evening	A 2.9	A 3.2	A 5.0	A 6.5	E 62.8	E 78.5	E 71.5	A 8.0
		A – 3.5		A – 6.5			E – 75.3		
Year 2029 No-Build Conditions	**Weekday Morning**	A 1.6	A 3.9	A 4.0	A 4.9	E 63.7	F 85.9	E 79.5	A 8.9
		A – 3.8		A – 4.9			F – 82.8		
	Weekday Evening	A 3.1	A 3.5	A 5.0	A 6.8	E 62.4	E 78.7	E 71.6	A 8.2
		A – 3.4		A – 6.8			E – 75.4		
Year 2029 Total Phase 1 Conditions	**Weekday Morning**	A 1.6	A 3.7	A 4.0	A 5.0	E 63.7	F 85.9	E 79.5	A 8.8
		A – 3.7		A – 5.0			F – 82.8		
	Weekday Evening	A 3.3	A 3.4	A 5.0	A 6.9	E 62.4	E 78.7	E 71.6	A 8.2
		A – 3.4		A – 6.9			E – 75.4		
Year 2029 Total Buildout Conditions	**Weekday Morning**	A 1.8	A 4.8	A 4.0	A 5.3	E 64.7	F 90.6	F 81.9	A 8.4
		A – 4.7		A – 5.3			F – 86.4		
	Weekday Evening	A 3.3	A 3.0	A 5.0	A 7.0	E 62.4	E 78.7	E 71.6	A 8.0
		A – 3.0		A – 7.0			E – 75.4		

Letter denotes Level of Service
Delay is measured in seconds.
L – Left Turn
T – Through
R – Right Turn

Table 8
CAPACITY ANALYSIS RESULTS – ARLINGTON HEIGHTS ROAD WITH I-90 WB OFF RAMP – SIGNALIZED

	Peak Hour	Eastbound	Westbound			Northbound		Southbound	Overall
		L/T/R	L	T	R	L	T/R	L/T/R	
Existing Conditions	**Weekday Morning**	E 69.8	D 49.5	D 49.5	E 65.7	E 70.3	B 12.8	A 7.7	C 22.2
			E – 60.2			B – 12.9			
	Weekday Evening	E 67.5	D 48.2	D 48.3	E 58.8	--	B 14.2	B 12.6	C 21.0
			E – 55.9			B – 14.2			
Year 2029 No-Build Conditions	**Weekday Morning**	E 69.8	D 48.4	D 48.4	E 63.9	E 70.3	B 13.8	A 8.1	C 22.2
			E – 58.6			B – 13.9			
	Weekday Evening	E 67.5	D 47.3	D 47.4	E 57.8	--	B 15.3	B 13.8	C 21.7
			D – 54.8			B – 15.3			
Year 2029 Total Phase 1 Conditions	**Weekday Morning**	E 69.8	D 47.6	D 47.6	E 63.1	E 70.3	B 14.2	A 9.2	C 22.6
			E – 57.9			B – 14.3			
	Weekday Evening	E 67.5	D 47.3	D 47.4	E 59.6	--	B 15.5	B 14.1	C 22.3
			E – 56.3			B – 15.5			
Year 2029 Total Buildout Conditions	**Weekday Morning**	E 69.8	D 43.0	D 43.0	E 55.3	E 70.3	B 17.8	B 13.0	C 24.0
			D – 51.5			B – 17.9			
	Weekday Evening	E 67.5	D 47.3	D 47.4	E 64.5	--	B 15.7	B 16.4	C 24.1
			E – 60.1			B – 15.7			

Letter denotes Level of Service
Delay is measured in seconds.
L – Left Turn
T – Through
R – Right Turn

Table 9
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Arlington Heights Road with Right-In/Right-Out Access Drive				
• ICU Level of Service	A	43.8%	A	52.5%

LOS = Level of Service; delay is measured in seconds.
The operation of this intersection is based on a critical volume to saturation flow (v/s) evaluation also known as the Intersection Capacity Utilization (ICU) method.

Table 10
CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Arlington Heights Road with Right-In/Right-Out Access Drive				
• ICU Level of Service	A	45.3%	A	54.4%

LOS = Level of Service; delay is measured in seconds.
The operation of this intersection is based on a critical volume to saturation flow (v/s) evaluation also known as the Intersection Capacity Utilization (ICU) method.

Table 11
CAPACITY ANALYSIS RESULTS – YEAR 2029 PHASE 1 PROJECTED CONDITIONS
UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Arlington Heights Road with Right-In/Right-Out Access Drive[1]				
• ICU Level of Service	A	45.8%	B	55.6%
Algonquin Road with Right-Out Only Access Drive				
• Northbound Approach	B	14.6	C	18.0

LOS = Level of Service; delay is measured in seconds.
1 - The operation of this intersection is based on a critical volume to saturation flow (v/s) evaluation also known as the Intersection Capacity Utilization (ICU) method.

Table 12
CAPACITY ANALYSIS RESULTS
YEAR 2029 TOTAL BUILDOUT PROJECTED CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Arlington Heights Road with Right-In/Right-Out Access Drive[1]				
• ICU Level of Service	A	53.5%	C	66.1%
Algonquin Road with Right-Out Only Access Drive				
• Northbound Approach	C	15.6	C	19.4

LOS = Level of Service; delay is measured in seconds.
1 - The operation of this intersection is based on a critical volume to saturation flow (v/s) evaluation also known as the Intersection Capacity Utilization (ICU) method.

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the development-generated traffic.

Algonquin Road with Arlington Heights Road

The results of the capacity analysis indicate that that this signalized intersection currently operates at an overall Level of Service (LOS) D during the weekday morning peak hour and weekday evening peak hour. All of the intersection movements operate at LOS D or better during both peak hours except the left-turn movements, which currently operate at LOS E/F. The lower level of service is due to the fact that the left-turn movements operate on a protected phase only and receive a limited amount of green time as well as the long cycle length of the traffic signal.

Under Year 2029 no-build conditions, this intersection is projected to continue to operate at an overall LOS D during the weekday morning peak hour and weekday evening peak hour. Further, all of the movements are projected to operate at LOS D or better during both peak hours except the left-turn movements, which are projected to operate at LOS E/F, and the southbound through movement, which is projected to operate at LOS E during the evening peak hour.

Under Year 2029 Phase 1 total conditions, this intersection is projected to continue to operate at an overall LOS D during the weekday morning and weekday evening peak hours. Further, all of the movements are projected to continue to operate at LOS D or better during both peak hours except the left-turn movements, which are projected to continue to operate at LOS E/F, and the southbound and eastbound through movements, which are projected to operate on the threshold between LOS D and E during the evening peak hour. As such, this intersection generally has sufficient reserve capacity to accommodate the traffic to be generated by Phase 1 of the development and no roadway improvements or traffic control modifications are required.

If the Year 2029 overall development projected traffic volumes are realized, this intersection is projected to continue to operate at an overall LOS D during the weekday morning peak hour and on a threshold between LOS D and E during the weekday evening peak hour. Further, all of the movements are projected to continue to operate at LOS D or better during both peak hours except the left-turn movements, which are projected to continue to operate at LOS E/F, and the southbound and eastbound through movements, which are projected to continue to operate at LOS E. If the Year 2029 overall development projected traffic volumes are realized, the traffic signal timings at this intersection should reoptimized.

Algonquin Road with Tonne Road

The results of the capacity analysis indicate that that this signalized intersection currently operates at an overall LOS B during the weekday morning peak hour and LOS A during the weekday evening peak hour. All of the intersection movements operate at LOS D or better during both peak hours except a few of the Tonne Road movements, which currently operate at LOS E. The lower level of service is due to the fact that the Tonne Road movements receive a limited amount of green time and the long cycle length of the traffic signal.

Under Year 2029 no-build conditions, this intersection is projected to operate at an overall LOS B during the weekday morning and weekday evening peak hours. Further, all of the movements are projected to operate at LOS D or better during both peak hours except a few of the Tonne Road movements, which are projected to operate at LOS E or F.

Under Year 2029 Phase 1 total conditions, this intersection is projected to continue to operate at an overall LOS B during the weekday morning and weekday evening peak hours. Further, all of the movements are projected to continue to operate at LOS D or better during both peak hours except a few of the Tonne Road movements, which are projected to operate at LOS E or F. It should be noted that the Tonne Road northbound left-turn movement is projected to operate at a poor level of service with longer delays and queues during the weekday evening peak hour. The Tonne Road movements are projected to operate significantly better with the reallocation of four to five seconds of green time from the Algonquin Road approaches to the Tonne Road approaches as shown in **Table 13**. With the reallocation of the green time during the evening peak hour, the northbound left-turn movement is projected to operate at LOS E with an estimated delay of 72.3 seconds and the southbound through/right-turn movement is projected to operate at LOS D. The lower level of service for the northbound left-turn movement is due in part to the fact that the Tonne Road movements receive a limited amount of green time and the long cycle length of the traffic signal. This is evident in the fact that the northbound left-turn movement is projected to have a volume to capacity (V/C) ratio of 0.58 and a 95th percentile queue of 150 feet assuming the reallocation of the green time. As such, this intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by Phase 1 of the development and no roadway improvements are required other than the optimization of the traffic signal timings.

Under Year 2029 overall development total conditions, this intersection is projected to operate at an overall LOS C during the weekday morning peak hour and LOS E during the weekday evening peak hour. Further, the Tonne Road northbound left-turn movement is projected to operate at a very poor level of service with longer delays and queues during the weekday evening peak hour. If the Year 2029 overall development traffic volumes are realized, the intersection will need to be improved (1) to provide dual left-turn lanes on the northbound and southbound approaches of Tonne Road and (2) the traffic signal will need to be modified to provide a separate left-turn phase for northbound and southbound Tonne Road. With the improvements, the intersection is projected to operate at an overall LOS B (see Table 13) during the weekday morning and evening peak hours. Further, all of the movements are projected to operate at LOS D or better during both peak hours except the Tonne Road northbound left-turn movement and the southbound through/right-turn movement, which are projected to operate at LOS E.

Table 13
CAPACITY ANALYSIS RESULTS – ALGONQUIN ROAD WITH TONNE ROAD – SIGNALIZED
PROPOSED SIGNAL MODIFICATIONS AND GEOMETRIC IMPROVEMENTS

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Year 2029 Phase I Projected Conditions[1]	Weekday Morning	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
		n.a.		n.a.		n.a.		n.a		
	Weekday Evening	C 30.4	A 6.9	A 3.9	A 8.6	E 72.6	C 25.0	D 53.5	B 14.1	B 11.7
		A – 9.8		A – 8.5		E – 62.1		C – 20.1		
Year 2029 Total Buildout Projected Conditions[2]	Weekday Morning	A 7.3	B 11.6	A 7.3	B 11.4	E 67.7	B 14.7	E 74.5	C 21.3	B 16.3
		B – 11.3		B – 11.1		D – 52.3		C – 25.9		
	Weekday Evening	C 33.9	A 9.6	A 9.7	B 11.2	E 72.8	B 16.2	E 77.0	D 40.5	B 18.3
		B – 12.4		B – 11.1		E – 56.6		D – 46.1		

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

1. The Year 2029 Phase 1 Projected Conditions assumes the relocation of approximately five seconds of green time from the Algonquin Road approaches to the Tonne Road approaches during the weekday evening peak hour.
2. The Year 2029 Total Buildout Projected Conditions assumes the addition of a second left-turn lane on the northbound approach of Tonne Road and modifications to the traffic signal timings and phasing.

Algonquin Road with Goebbert Road

The results of the capacity analysis indicate that that this signalized intersection currently operates at an overall LOS A during the weekday morning and weekday evening peak hours. All of the Algonquin Road movements operate at LOS A and the Goebbert Road movements operate at LOS E. The lower level of service is due to the fact that the Goebbert Road movements receive a limited amount of green time and the long cycle length of the traffic signal.

Under Year 2029 no-build conditions, this intersection is projected to continue to operate at an overall LOS A during the weekday morning and weekday evening peak hours. All of the Algonquin Road movements are projected to continue to operate at LOS A and the Goebbert Road movements are projected to continue to operate at LOS E or F.

Under Year 2029 Phase 1 and overall development total conditions, this intersection is projected to continue to operate at an overall LOS A during the weekday morning and weekday evening peak hours. Further, All of the Algonquin Road movements are projected to continue to operate at LOS A and the Goebbert Road movements are projected to continue to operate operate at LOS E or F. As such, this intersection has sufficient reserve capacity to accommodate the traffic to be generated by Phase 1 and the overall development and no roadway improvements or traffic control modifications are required.

Arlington Heights Road with the I-90 Westbound Off Ramp

The results of the capacity analysis indicate that that this signalized intersection currently operates at an overall LOS C during the weekday morning and weekday evening peak hours. All of the intersection movements operate at LOS D or better during both peak hours except the I-90 westbound ramp movements and the access drive, which currently operate at LOS E. The lower level of service is due to the fact that the I-90 westbound ramp movements and the access drive receive a reduced amount of green time and the long cycle length of the traffic signal.

Under Year 2029 no-build conditions, this intersection is projected to continue to operate at an overall LOS C during the weekday morning and weekday evening peak hours. Further, all of the movements are projected to operate at LOS D or better during both peak hours except the I-90 westbound ramp movements and the access drive, which are projected to continue to operate at LOS E.

Under Year 2029 Phase 1 and overall development total conditions, this intersection is projected to continue to operate at an overall LOS C during the weekday morning and weekday evening peak hours. Further, all of the movements are projected to continue to operate at LOS D or better during both peak hours except the I-90 westbound ramp movements and the access drive, which are projected to continue to operate at LOS E. As such, this intersection has sufficient reserve capacity to accommodate the traffic to be generated by Phase 1 and the overall buildout of the development and no roadway improvements or traffic control modifications are required.

Arlington Heights Road with Access Drive

Because of the traffic control configuration of this intersection, the intersection could not be analyzed using HCM procedures and was analyzed using the Intersection Capacity Utilization (ICU) level of service. The ICU indicates how much reserve capacity is available or how much an intersection is over capacity.

Based on the ICU analysis, the intersection currently operates at LOS A utilizing approximately 40 to 45 percent of the capacity of the intersection during the weekday morning peak hour and operates at LOS A utilizing approximately 50 to 55 percent of the capacity of the intersection during the weekday evening peak hour.

Secondary access to the development will be provided via a restricted right-turn in/right-turn out access road on Arlington Heights Road located approximately 785 feet south of Algonquin Road. At its intersection with the Arlington Heights Road, the access road should provide one inbound lane and one outbound lane that will be restricted to right-turn movements only due to the barrier median along Arlington Heights Road. The outbound lane will be under stop sign control. It is important to note that the access road will replace the four existing right-turn in/right-turn out access drives serving the site.

Under Year 2029 Phase 1 and overall development total conditions, this intersection is projected to operate at LOS A during the weekday morning peak hour utilizing 45 to 54 percent of the capacity of the intersection and LOS B/C during the weekday evening peak hour utilizing 55 to 66 percent of the capacity of the intersection.

Algonquin Road with Proposed Right-Out Access Drive

Secondary access to the development will be provided via a restricted right-turn in/right-turn out access drive on Algonquin Road located approximately 420 feet southeast of Arlington Heights Road. At its intersection with Algonquin Road, the access drive should provide one inbound lane and one outbound lane that will be restricted to right-turn movements only due to the barrier median along Algonquin Road. The outbound lane will be under stop sign control. It is important to note that the access road will replace the four existing right-turn in/right-turn out access drives serving the site.

Under 2029 Phase 1 and overall development total conditions, the northbound approach will operate at LOS C or better during the weekday morning and weekday evening peak hours. As a result, the access drive will operate efficiently with limited impact on Algonquin Road.

6. Parking Analysis

As proposed, the project is to be developed in several phases with the first phase of the development to consist of 301 residential units, 25,000 square feet of commercial space, and approximately 558 parking spaces. The overall development is currently anticipated to consist of approximately 901 residential units, a 200-room business hotel, 76,600 square feet of medical office space, 76,600 square feet of general office space, 45,000 square feet of commercial space, and approximately 2,540 parking spaces.

The parking demand of the first phase of the development and the overall development was determined based on the (1) Village of Arlington Heights requirements and (2) parking rates provided in the ITE *Parking Generation Manual*, 6th Edition.

Village of Arlington Heights Requirements

Per the Village of Arlington Heights Zoning Ordinance and the South Arlington Heights Road Overlay District, **Table 14** shows the parking that is required for both Phase 1 of the development and the overall development. It should be noted that the Village's requirements provide for a worst-case scenario, as they do not take into consideration (1) the shared parking that will occur between the various uses and (2) the mixed-use nature (interaction) of the development. For example, the residential and hotel peak parking demand occurs at night while the peak parking demand for the commercial and the general/medical office occurs during the day. Further, it is anticipated that many residents or guests of the hotel will walk to the commercial uses or work or use the services of the general/medical office. Nevertheless, with a total of 558 parking spaces proposed as part of Phase 1 and 2,540 parking spaces proposed as part of the overall development, it can be seen that the parking to be provided by the development meets the requirements of the Village of Arlington Heights.

Peak Parking Demand per ITE Parking Generation Rates

The peak parking demand of Phase 1 and the overall development was also determined based on the following parking generation rates contained in ITE *Parking Generation Manual*, 6th Edition:

- The Multifamily Housing (Mid-Rise) (ITE Land-Use Code 221) parking rates
- The Hotel (ITE Land-Use Code 310) parking rates
- The Medical-Dental Office Building (ITE Land-Use Code 720) parking rates
- The Shopping Center (ITE Land-Use Code 820) parking rates

Table 15 shows the estimated peak parking demand for the first phase of the development and the overall development. With a total of 558 parking spaces proposed as part of Phase 1 and 2,540 parking spaces proposed as part of the overall development, it can be seen that the parking to be provided by the development meets the estimated peak parking demand of the development based on the ITE parking rates.

As discussed above, it is important to note that the peak parking demand determined based on the ITE parking rates provides for a worst-case estimate, as it does not take into consideration (1) the shared parking that will occur between the various uses and (2) the mixed-use nature (interaction) of the development. For example, the estimated peak parking demand (1,099 vehicles) of the residential portion of the development will occur during the overnight hours when the medical office and commercial portions of the development are closed. The 901 residential units are estimated to have a peak parking demand between 540 to 735 vehicles during weekday days (9:00 A.M. to 5:00 P.M.), which is approximately 0.33 to 0.50 percent less than the peak parking demand. As such, the actual parking demand of the overall development is projected to be less than that shown in Table 14.

Table 14
PARKING REQUIREMENTS PER
THE VILLAGE OF ARLINGTON HEIGHTS ZONING ORDINANCE

Land Use	Size	Requirements	Parking Spaces
Phase 1			
Residential – Studios	49 units	1 space per unit	49
Residential – 1 Bedroom	157 units	1.5 spaces per unit	236
Residential – 2/3 Bedroom	95 units	2 spaces per unit	190
Commercial	25,000 s.f.	1 space per 300 square feet	83
Total			**558**
Total Development			
Residential – Studios	147 units	1 space per unit	147
Residential – 1 Bedroom	470 units	1.5 spaces per unit	705
Residential – 2/3 Bedroom	285 units	2 spaces per unit	570
Commercial	45,000 s.f.	1 space per 300 square feet	150
Hotel	200 keys	1 space per key	200
Office	153,200	1 space per 300 square feet	766
Total			**2,538**

Table 15
ESTIMATED PEAK PARKING DEMAND PER
ITE *PARKING GENERATION MANUAL*

Land Use	Size	Parking Demand (Vehicles)	
		Weekday	Weekend
Phase 1			
Residential	301 units	395	367
Commercial	25,000 s.f.	138	109
Total		**533**	**476**
Total Development			
Residential	901 units	1,199	1,099
Commercial	45,000 s.f.	167	164
Hotel	200 keys	161	223
Office	153,200	506	86
Total		**2,033**	**1,572**

7. Conclusion

Based on existing conditions and the traffic capacity analyses for the full buildout of the development, the findings and recommendations of this study are outlined below:

- The volume of traffic to be generated by the development will be reduced to account for pass-by trips and multi-purpose trips as well as the fact that some of the uses on the site are operating and generating traffic.

- Access to the development is to be provided via the following three access drives:

    - Primary access to the overall development and Phase 1 will be provided via Tonne Road and its signalized intersection with Algonquin Road. Both approaches of Tonne Road provide a separate left-turn lane and shared through/right-turn lane. In addition, a separate left-turn lane is provided on both approaches of Algonquin Road serving Tonne Road.

    - Secondary access to the development will be provided via a restricted right-turn in/right-turn out access road on Arlington Heights Road located approximately 785 feet south of Algonquin Road. As proposed, the two-lane access road is to extend from Arlington Heights Road to Tonne Road and will provide access to the Phase 1 and 3 buildings. At its intersection with Arlington Heights Road, the access road should provide one inbound lane and one outbound lane that will be restricted to right-turn movements only due to the barrier median along Arlington Heights Road. The outbound lane will be under stop sign control. It is important to note that the access road will replace the four existing right-turn in/right-turn out access drives serving the site. Further, the access road will be under stop sign control at its intersection with Tonne Road.

    - Secondary access to the development will be provided via a restricted right-turn in/right-turn out access drive on Algonquin Road located approximately 420 feet southeast of Arlington Heights Road. At its intersection with Algonquin Road, the access drive should provide one inbound lane and one outbound lane that will be restricted to right-turn movements only due to the barrier median along Algonquin Road. The outbound lane will be under stop sign control. It is important to note that the access road will replace the four existing right-turn in/right-turn out access drives serving the site.

    - Access to the Phase 2 and 4 buildings will be provided via three access drives located on the east side of Tonne Road. Each access drive should provide a minimum of one inbound lane and one outbound lane with the outbound lane under stop sign control.

- Access to the Phase 1 and 3 buildings will be provided via several access drives located on the east-west circulation road. Each access drive should provide a minimum of one inbound lane and one outbound lane with the outbound lane under stop sign control.

- The proposed access system will provide flexible and efficient access to and from the site.

- The roadway system generally has sufficient reserve capacity to accommodate the traffic to be generated by Phase 1 of the development. Other than traffic signal timing adjustments that may be required at the Algonquin Road/Tonne Road intersection, no other roadway improvements or traffic control modifications are required.

- If the Year 2029 total projected traffic volumes assuming the overall development are realized, the following improvements will be required:

  - The traffic signal timings at the Algonquin Road/Arlington Heights Road intersection will need to reoptimized.

  - Dual left-turn lanes will be required on the northbound and southbound approaches of Tonne Road at its intersection with Algonquin Road and the traffic signal will need to be modified to provide a separate left-turn phase for northbound and southbound Tonne Road.

- Phase 1 of the development is proposed to provide approximately 558 parking spaces and the overall development is proposed to provide approximately 2,540 parking spaces. The total number of parking spaces to be provided in Phase 1 and the overall development (1) meet the requirements of the Village of Arlington Heights and (2) exceed the estimated peak parking demand based on ITE parking generation rates.

Appendix

Traffic Count Summary Sheets
Site Plan
CMAP Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets
Algonquin Road with Tonne Road Intersection – Traffic Signal Modifications and Improvements

Traffic Count Summary Sheets

S Arlington Heights Rd with E Algonquin Rd - TMC

Thu Jun 16, 2022
Full Length (7 AM-9 AM, 4 PM-6 PM, 11:30 AM-2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966117, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

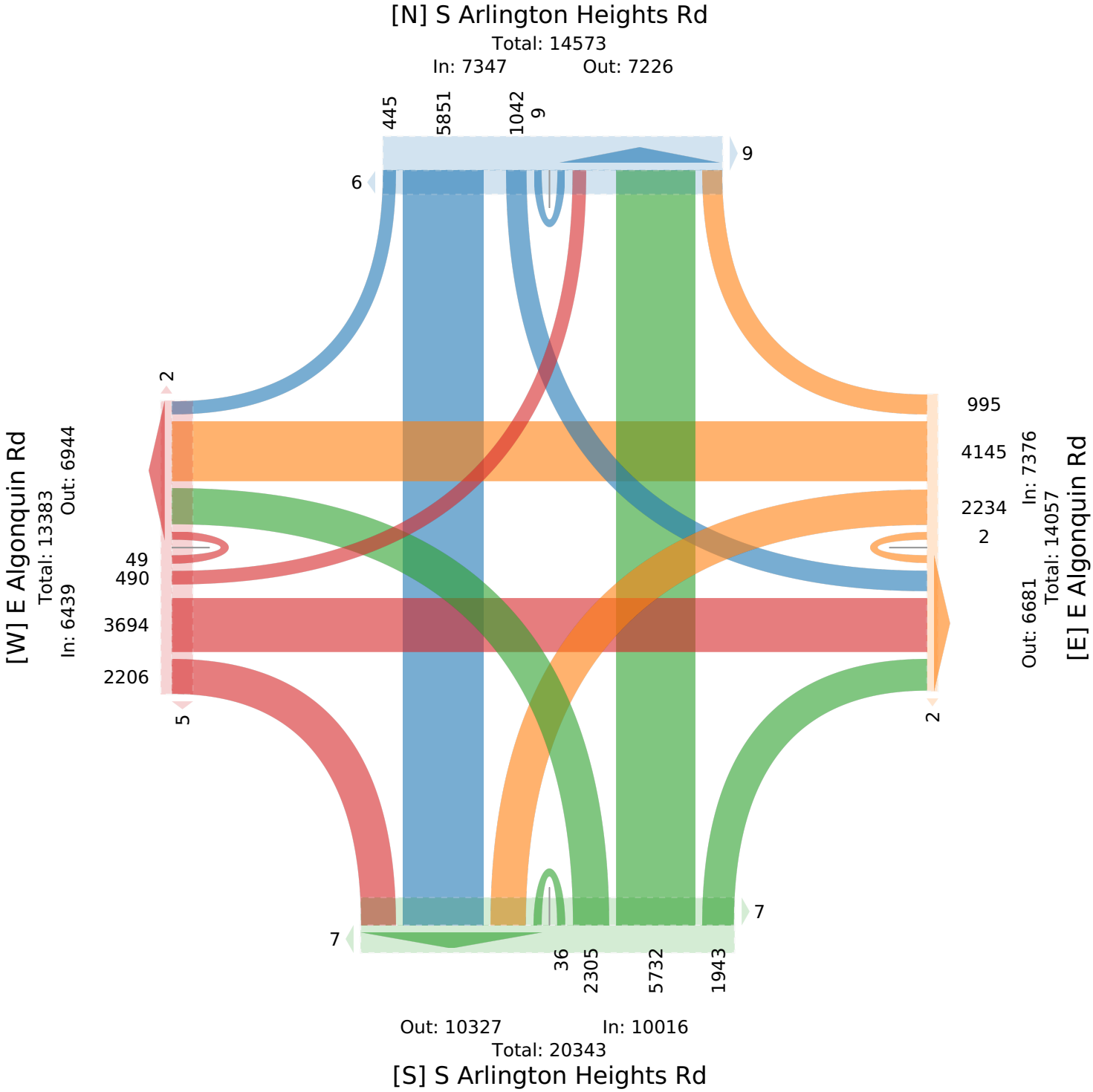
Leg	E Algonquin Rd						E Algonquin Rd						S Arlington Heights Rd						S Arlington Heights Rd						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2022-06-16 7:00AM	72	121	6	2	**201**	2	25	72	83	0	**180**	0	55	147	69	0	**271**	1	19	197	22	1	**239**	1	**891**
7:15AM	71	110	7	3	**191**	0	30	117	62	0	**209**	0	51	166	65	1	**283**	0	17	218	28	0	**263**	1	**946**
7:30AM	98	142	10	1	**251**	0	26	125	82	0	**233**	0	62	213	87	0	**362**	0	16	218	41	0	**275**	1	**1121**
7:45AM	86	154	6	0	**246**	0	30	117	92	0	**239**	0	83	252	102	1	**438**	0	22	281	41	0	**344**	0	**1267**
Hourly Total	327	527	29	6	**889**	2	111	431	319	0	**861**	0	251	778	323	2	**1354**	1	74	914	132	1	**1121**	3	**4225**
8:00AM	76	106	16	0	**198**	0	31	101	66	0	**198**	0	74	179	79	1	**333**	0	24	245	32	0	**301**	1	**1030**
8:15AM	75	118	10	4	**207**	0	42	125	81	0	**248**	0	64	200	93	0	**357**	0	15	222	32	0	**269**	0	**1081**
8:30AM	81	112	8	3	**204**	0	42	104	74	0	**220**	0	63	203	89	0	**355**	0	16	200	27	0	**243**	0	**1022**
8:45AM	57	119	8	1	**185**	0	35	132	66	0	**233**	0	53	212	78	2	**345**	0	10	200	30	2	**242**	2	**1005**
Hourly Total	289	455	42	8	**794**	0	150	462	287	0	**899**	0	254	794	339	3	**1390**	0	65	867	121	2	**1055**	3	**4138**
4:00PM	125	155	24	1	**305**	0	53	190	108	0	**351**	1	89	214	86	1	**390**	2	11	258	32	0	**301**	0	**1347**
4:15PM	91	160	23	2	**276**	0	38	200	105	0	**343**	0	99	248	110	1	**458**	0	15	218	42	0	**275**	1	**1352**
4:30PM	142	139	20	0	**301**	0	48	211	124	0	**383**	0	83	243	82	1	**409**	1	30	248	46	0	**324**	0	**1417**
4:45PM	97	182	21	1	**301**	0	45	217	105	0	**367**	0	82	230	123	1	**436**	0	21	247	45	0	**313**	0	**1417**
Hourly Total	455	636	88	4	**1183**	0	184	818	442	0	**1444**	1	353	935	401	4	**1693**	3	77	971	165	0	**1213**	1	**5533**
5:00PM	99	141	25	3	**268**	2	57	233	90	0	**380**	0	101	267	116	0	**484**	3	19	225	58	0	**302**	0	**1434**
5:15PM	106	195	21	0	**322**	0	45	208	81	0	**334**	0	107	311	116	0	**534**	1	11	228	49	0	**288**	0	**1478**
5:30PM	108	158	27	1	**294**	0	52	181	90	0	**323**	0	93	269	88	0	**450**	0	15	237	38	0	**290**	0	**1357**
5:45PM	76	136	25	4	**241**	1	35	169	78	0	**282**	0	98	289	90	2	**479**	0	11	205	53	0	**269**	0	**1271**
Hourly Total	389	630	98	8	**1125**	3	189	791	339	0	**1319**	0	399	1136	410	2	**1947**	4	56	895	198	0	**1149**	0	**5540**
2022-06-18 11:30AM	70	154	25	0	**249**	1	27	179	84	0	**290**	0	71	165	103	6	**345**	0	21	226	42	0	**289**	1	**1173**
11:45AM	68	150	35	2	**255**	1	33	140	91	0	**264**	0	64	209	89	4	**366**	0	16	233	58	0	**307**	1	**1192**
Hourly Total	138	304	60	2	**504**	2	60	319	175	0	**554**	0	135	374	192	10	**711**	0	37	459	100	0	**596**	2	**2365**
12:00PM	68	119	18	1	**206**	0	30	183	88	2	**303**	0	65	211	77	1	**354**	0	31	252	40	2	**325**	3	**1188**
12:15PM	67	141	20	1	**229**	0	41	155	82	0	**278**	0	62	206	96	3	**367**	0	11	168	55	1	**235**	0	**1109**
12:30PM	78	154	24	5	**261**	0	44	185	85	0	**314**	0	75	217	68	3	**363**	0	18	214	49	0	**281**	1	**1219**
12:45PM	79	167	21	0	**267**	0	33	143	71	0	**247**	0	81	214	70	0	**365**	2	16	214	29	0	**259**	1	**1138**
Hourly Total	292	581	83	7	**963**	0	148	666	326	2	**1142**	0	283	848	311	7	**1449**	2	76	848	173	3	**1100**	5	**4654**
1:00PM	79	141	25	2	**247**	0	31	147	81	0	**259**	0	67	229	86	1	**383**	2	12	210	48	0	**270**	0	**1159**
1:15PM	76	143	24	5	**248**	0	39	142	82	0	**263**	0	70	234	87	1	**392**	1	22	225	41	0	**288**	1	**1191**
1:30PM	76	138	23	4	**241**	0	34	163	98	0	**295**	1	77	205	76	4	**362**	1	13	186	38	1	**238**	0	**1136**
1:45PM	85	139	18	3	**245**	0	49	206	85	0	**340**	0	54	199	80	2	**335**	0	13	276	26	2	**317**	0	**1237**
Hourly Total	316	561	90	14	**981**	0	153	658	346	0	**1157**	1	268	867	329	8	**1472**	4	60	897	153	3	**1113**	1	**4723**
Total	2206	3694	490	49	**6439**	7	995	4145	2234	2	**7376**	2	1943	5732	2305	36	**10016**	14	445	5851	1042	9	**7347**	15	**31178**
% Approach	34.3%	57.4%	7.6%	0.8%	**-**	-	13.5%	56.2%	30.3%	0%	**-**	-	19.4%	57.2%	23.0%	0.4%	**-**	-	6.1%	79.6%	14.2%	0.1%	**-**	-	-
% Total	7.1%	11.8%	1.6%	0.2%	**20.7%**	-	3.2%	13.3%	7.2%	0%	**23.7%**	-	6.2%	18.4%	7.4%	0.1%	**32.1%**	-	1.4%	18.8%	3.3%	0%	**23.6%**	-	-
Lights	2140	3547	484	49	**6220**	-	965	4005	2158	2	**7130**	-	1859	5624	2253	36	**9772**	-	439	5720	1011	9	**7179**	-	30301
% Lights	97.0%	96.0%	98.8%	100%	**96.6%**	-	97.0%	96.6%	96.6%	100%	**96.7%**	-	95.7%	98.1%	97.7%	100%	**97.6%**	-	98.7%	97.8%	97.0%	100%	**97.7%**	-	97.2%
Single-Unit Trucks	49	93	6	0	**148**	-	21	70	29	0	**120**	-	30	58	39	0	**127**	-	5	95	20	0	**120**	-	515
% Single-Unit Trucks	2.2%	2.5%	1.2%	0%	**2.3%**	-	2.1%	1.7%	1.3%	0%	**1.6%**	-	1.5%	1.0%	1.7%	0%	**1.3%**	-	1.1%	1.6%	1.9%	0%	**1.6%**	-	1.7%
Articulated Trucks	16	25	0	0	**41**	-	3	37	43	0	**83**	-	50	40	12	0	**102**	-	1	27	7	0	**35**	-	261
% Articulated Trucks	0.7%	0.7%	0%	0%	**0.6%**	-	0.3%	0.9%	1.9%	0%	**1.1%**	-	2.6%	0.7%	0.5%	0%	**1.0%**	-	0.2%	0.5%	0.7%	0%	**0.5%**	-	0.8%
Buses	1	29	0	0	**30**	-	6	33	4	0	**43**	-	4	9	1	0	**14**	-	0	5	4	0	**9**	-	96
% Buses	0%	0.8%	0%	0%	**0.5%**	-	0.6%	0.8%	0.2%	0%	**0.6%**	-	0.2%	0.2%	0%	0%	**0.1%**	-	0%	0.1%	0.4%	0%	**0.1%**	-	0.3%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	4	0	0	**4**	-	5
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%
Pedestrians	-	-	-	-	-	7	-	-	-	-	-	2	-	-	-	-	-	14	-	-	-	-	-	15	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

S Arlington Heights Rd with E Algonquin Rd - TMC

Thu Jun 16, 2022
Full Length (7 AM-9 AM, 4 PM-6 PM, 11:30 AM-2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966117, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



S Arlington Heights Rd with E Algonquin Rd - TMC

Thu Jun 16, 2022
AM Peak (Jun 16 2022 7:30AM - 8:30 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966117, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	E Algonquin Rd						E Algonquin Rd						S Arlington Heights Rd						S Arlington Heights Rd						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-06-16 7:30AM	98	142	10	1	**251**	0	26	125	82	0	**233**	0	62	213	87	0	**362**	0	16	218	41	0	**275**	1	**1121**
7:45AM	86	154	6	0	**246**	0	30	117	92	0	**239**	0	83	252	102	1	**438**	0	22	281	41	0	**344**	0	**1267**
8:00AM	76	106	16	0	**198**	0	31	101	66	0	**198**	0	74	179	79	1	**333**	0	24	245	32	0	**301**	1	**1030**
8:15AM	75	118	10	4	**207**	0	42	125	81	0	**248**	0	64	200	93	0	**357**	0	15	222	32	0	**269**	0	**1081**
Total	335	520	42	5	**902**	0	129	468	321	0	**918**	0	283	844	361	2	**1490**	0	77	966	146	0	**1189**	2	**4499**
% Approach	37.1%	57.6%	4.7%	0.6%	**-**	-	14.1%	51.0%	35.0%	0%	**-**	-	19.0%	56.6%	24.2%	0.1%	**-**	-	6.5%	81.2%	12.3%	0%	**-**	-	-
% Total	7.4%	11.6%	0.9%	0.1%	**20.0%**	-	2.9%	10.4%	7.1%	0%	**20.4%**	-	6.3%	18.8%	8.0%	0%	**33.1%**	-	1.7%	21.5%	3.2%	0%	**26.4%**	-	-
PHF	0.855	0.844	0.656	0.313	**0.898**	-	0.768	0.936	0.872	-	**0.925**	-	0.852	0.837	0.885	0.500	**0.850**	-	0.802	0.859	0.890	-	**0.864**	-	0.888
Lights	311	488	40	5	**844**	-	118	420	299	0	**837**	-	264	808	346	2	**1420**	-	76	937	133	0	**1146**	-	4247
% Lights	92.8%	93.8%	95.2%	100%	**93.6%**	-	91.5%	89.7%	93.1%	0%	**91.2%**	-	93.3%	95.7%	95.8%	100%	**95.3%**	-	98.7%	97.0%	91.1%	0%	**96.4%**	-	94.4%
Single-Unit Trucks	22	24	2	0	**48**	-	8	24	9	0	**41**	-	6	21	10	0	**37**	-	1	22	8	0	**31**	-	157
% Single-Unit Trucks	6.6%	4.6%	4.8%	0%	**5.3%**	-	6.2%	5.1%	2.8%	0%	**4.5%**	-	2.1%	2.5%	2.8%	0%	**2.5%**	-	1.3%	2.3%	5.5%	0%	**2.6%**	-	3.5%
Articulated Trucks	2	4	0	0	**6**	-	1	10	12	0	**23**	-	12	13	5	0	**30**	-	0	6	4	0	**10**	-	69
% Articulated Trucks	0.6%	0.8%	0%	0%	**0.7%**	-	0.8%	2.1%	3.7%	0%	**2.5%**	-	4.2%	1.5%	1.4%	0%	**2.0%**	-	0%	0.6%	2.7%	0%	**0.8%**	-	1.5%
Buses	0	4	0	0	**4**	-	2	14	1	0	**17**	-	1	2	0	0	**3**	-	0	1	1	0	**2**	-	26
% Buses	0%	0.8%	0%	0%	**0.4%**	-	1.6%	3.0%	0.3%	0%	**1.9%**	-	0.4%	0.2%	0%	0%	**0.2%**	-	0%	0.1%	0.7%	0%	**0.2%**	-	0.6%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

S Arlington Heights Rd with E Algonquin Rd - TMC

Thu Jun 16, 2022
AM Peak (Jun 16 2022 7:30AM - 8:30 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966117, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
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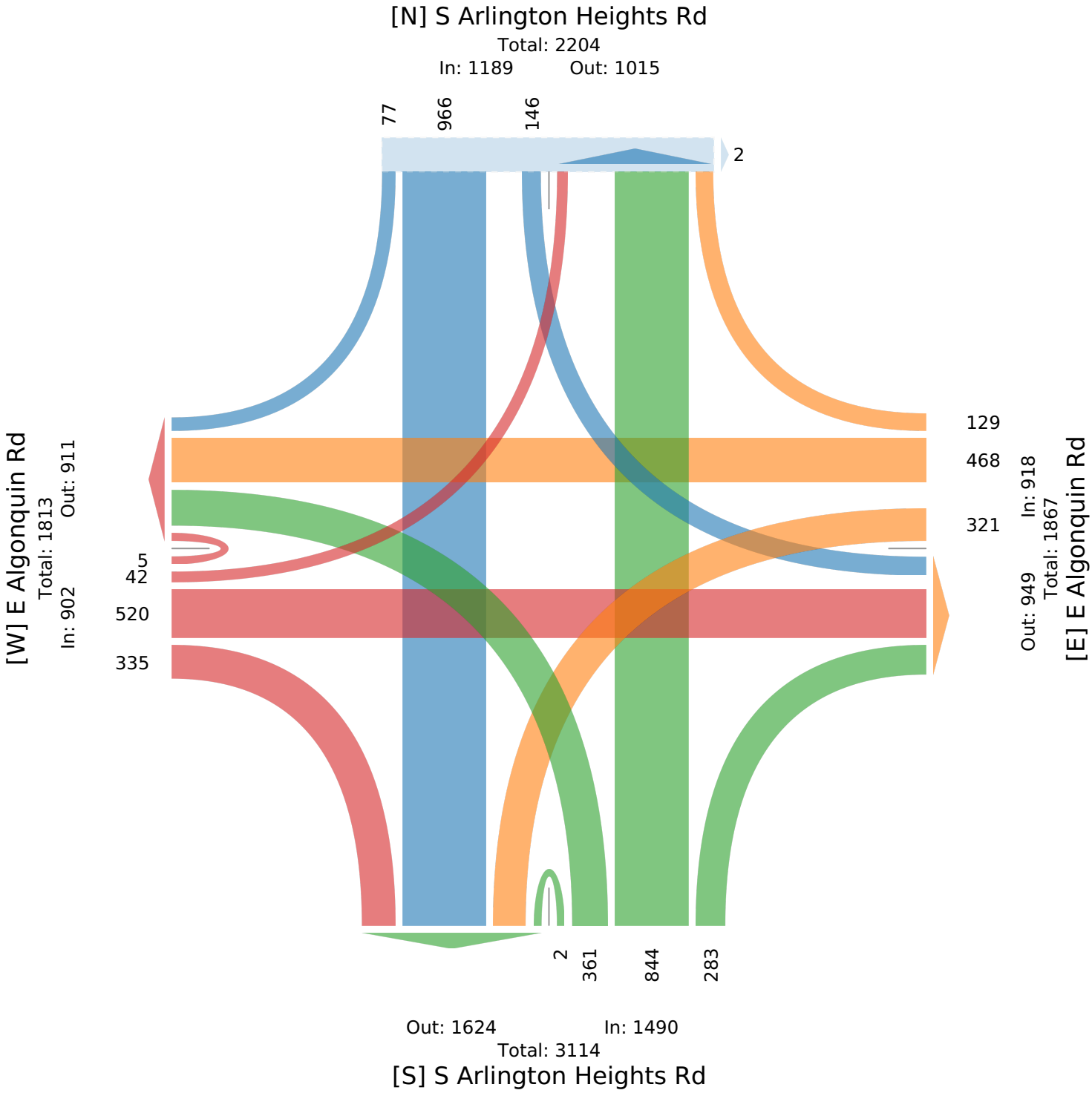


S Arlington Heights Rd with E Algonquin Rd - TMC

Thu Jun 16, 2022
PM Peak (Jun 16 2022 4:30PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966117, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

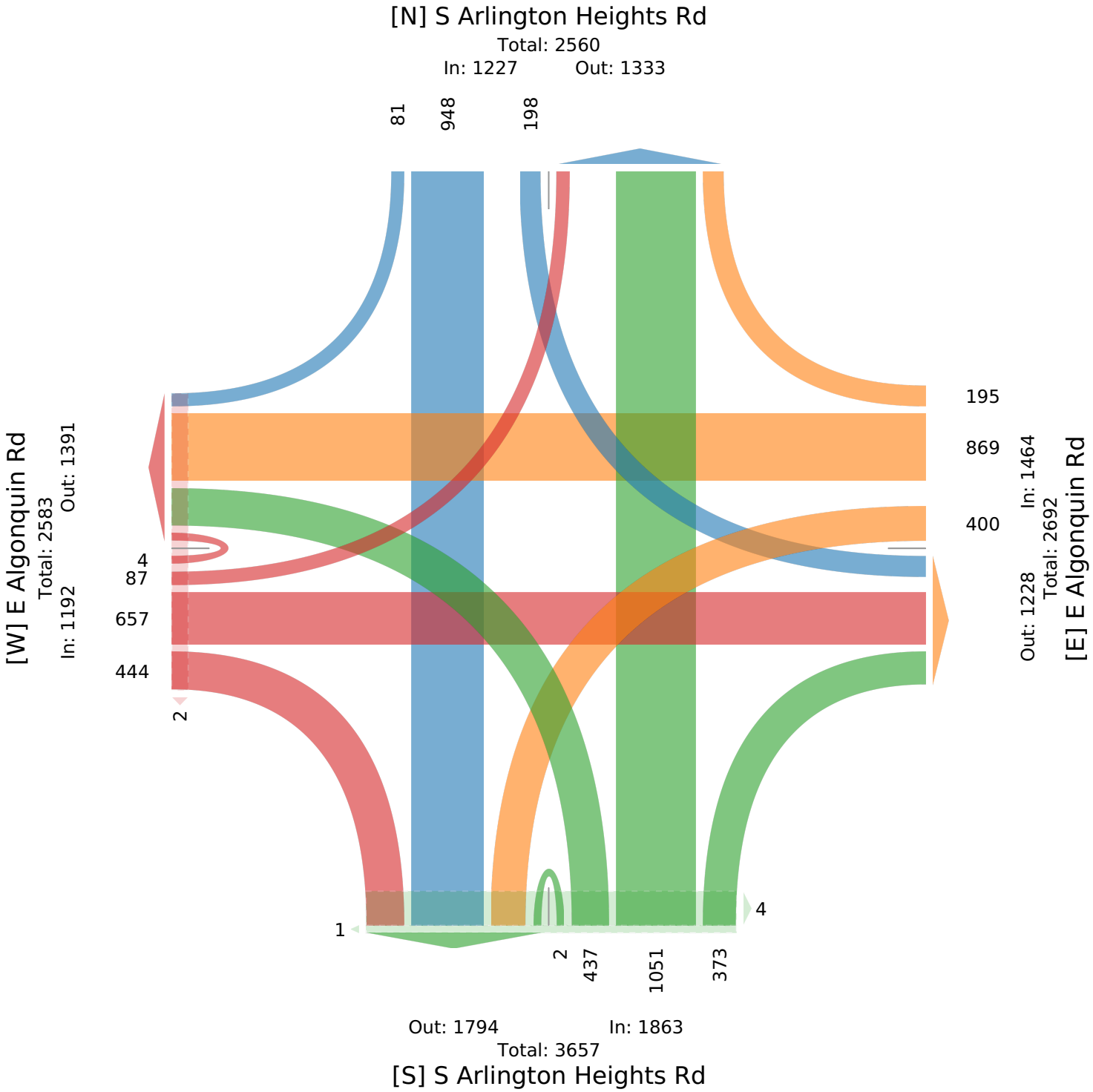
Leg	E Algonquin Rd						E Algonquin Rd						S Arlington Heights Rd						S Arlington Heights Rd						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-06-16 4:30PM	142	139	20	0	**301**	0	48	211	124	0	**383**	0	83	243	82	1	**409**	1	30	248	46	0	**324**	0	**1417**
4:45PM	97	182	21	1	**301**	0	45	217	105	0	**367**	0	82	230	123	1	**436**	0	21	247	45	0	**313**	0	**1417**
5:00PM	99	141	25	3	**268**	2	57	233	90	0	**380**	0	101	267	116	0	**484**	3	19	225	58	0	**302**	0	**1434**
5:15PM	106	195	21	0	**322**	0	45	208	81	0	**334**	0	107	311	116	0	**534**	1	11	228	49	0	**288**	0	**1478**
Total	444	657	87	4	**1192**	2	195	869	400	0	**1464**	0	373	1051	437	2	**1863**	5	81	948	198	0	**1227**	0	**5746**
% Approach	37.2%	55.1%	7.3%	0.3%	**-**	-	13.3%	59.4%	27.3%	0%	**-**	-	20.0%	56.4%	23.5%	0.1%	**-**	-	6.6%	77.3%	16.1%	0%	**-**	-	-
% Total	7.7%	11.4%	1.5%	0.1%	**20.7%**	-	3.4%	15.1%	7.0%	0%	**25.5%**	-	6.5%	18.3%	7.6%	0%	**32.4%**	-	1.4%	16.5%	3.4%	0%	**21.4%**	-	-
PHF	0.782	0.842	0.870	0.333	**0.925**	-	0.855	0.932	0.806	-	**0.956**	-	0.871	0.845	0.888	0.500	**0.872**	-	0.675	0.956	0.853	-	**0.947**	-	0.972
Lights	436	631	87	4	**1158**	-	190	853	394	0	**1437**	-	361	1046	433	2	**1842**	-	79	939	192	0	**1210**	-	5647
% Lights	98.2%	96.0%	100%	100%	**97.1%**	-	97.4%	98.2%	98.5%	0%	**98.2%**	-	96.8%	99.5%	99.1%	100%	**98.9%**	-	97.5%	99.1%	97.0%	0%	**98.6%**	-	98.3%
Single-Unit Trucks	7	12	0	0	**19**	-	3	5	1	0	**9**	-	4	1	2	0	**7**	-	2	6	3	0	**11**	-	46
% Single-Unit Trucks	1.6%	1.8%	0%	0%	**1.6%**	-	1.5%	0.6%	0.3%	0%	**0.6%**	-	1.1%	0.1%	0.5%	0%	**0.4%**	-	2.5%	0.6%	1.5%	0%	**0.9%**	-	0.8%
Articulated Trucks	1	8	0	0	**9**	-	1	9	5	0	**15**	-	8	3	2	0	**13**	-	0	3	3	0	**6**	-	43
% Articulated Trucks	0.2%	1.2%	0%	0%	**0.8%**	-	0.5%	1.0%	1.3%	0%	**1.0%**	-	2.1%	0.3%	0.5%	0%	**0.7%**	-	0%	0.3%	1.5%	0%	**0.5%**	-	0.7%
Buses	0	6	0	0	**6**	-	1	2	0	0	**3**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	10
% Buses	0%	0.9%	0%	0%	**0.5%**	-	0.5%	0.2%	0%	0%	**0.2%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0.2%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

S Arlington Heights Rd with E Algonquin Rd - TMC

Thu Jun 16, 2022
PM Peak (Jun 16 2022 4:30PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966117, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



S Arlington Heights Rd with E Algonquin Rd - TMC

Sat Jun 18, 2022
Midday Peak (WKND), PM Peak (WKND) (Jun 18 2022 1PM - 2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966117, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

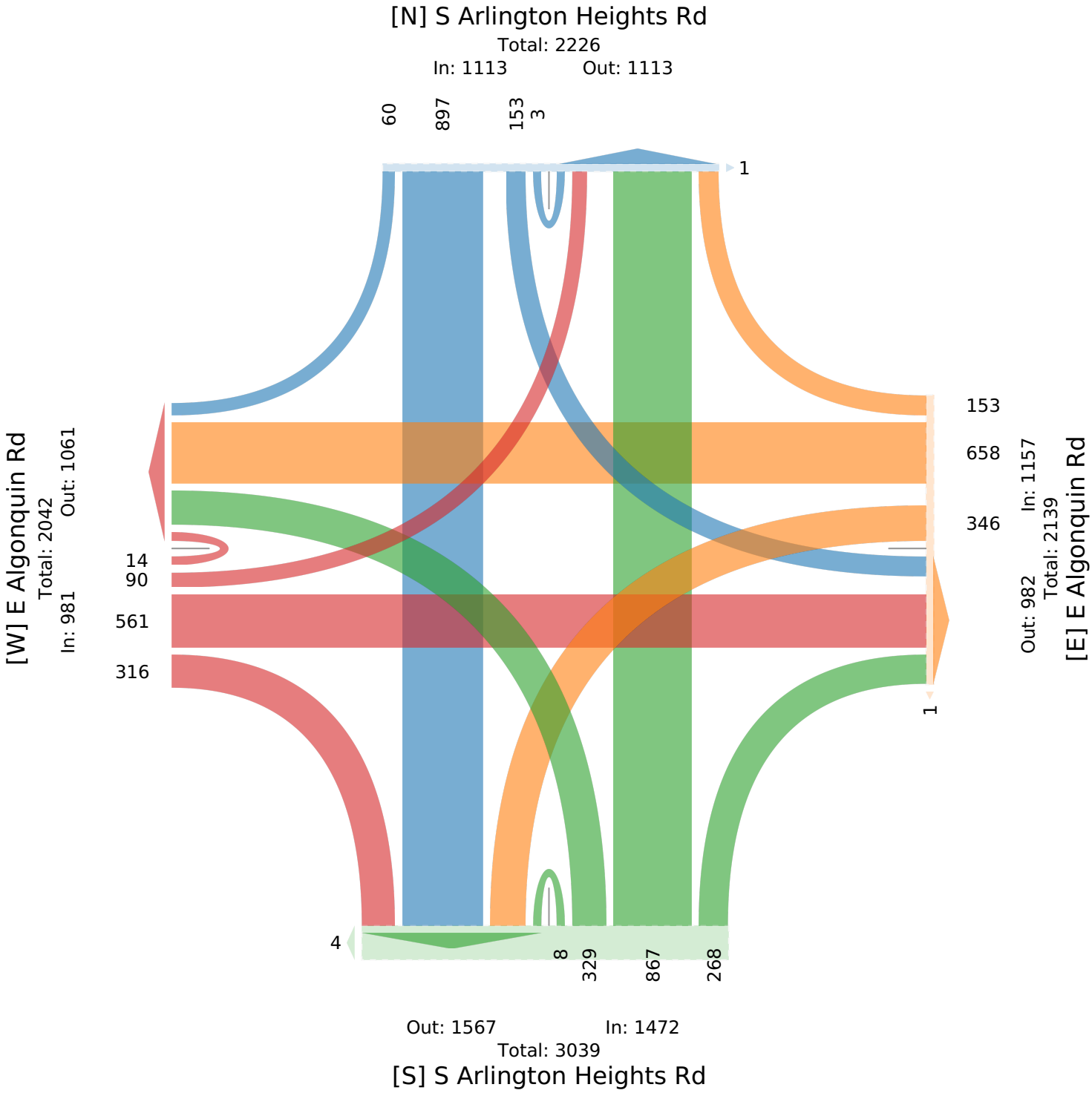
Leg	E Algonquin Rd						E Algonquin Rd						S Arlington Heights Rd						S Arlington Heights Rd						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-06-18 1:00PM	79	141	25	2	**247**	0	31	147	81	0	**259**	0	67	229	86	1	**383**	2	12	210	48	0	**270**	0	**1159**
1:15PM	76	143	24	5	**248**	0	39	142	82	0	**263**	0	70	234	87	1	**392**	1	22	225	41	0	**288**	1	**1191**
1:30PM	76	138	23	4	**241**	0	34	163	98	0	**295**	1	77	205	76	4	**362**	1	13	186	38	1	**238**	0	**1136**
1:45PM	85	139	18	3	**245**	0	49	206	85	0	**340**	0	54	199	80	2	**335**	0	13	276	26	2	**317**	0	**1237**
Total	316	561	90	14	**981**	0	153	658	346	0	**1157**	1	268	867	329	8	**1472**	4	60	897	153	3	**1113**	1	**4723**
% Approach	32.2%	57.2%	9.2%	1.4%	**-**	-	13.2%	56.9%	29.9%	0%	**-**	-	18.2%	58.9%	22.4%	0.5%	**-**	-	5.4%	80.6%	13.7%	0.3%	**-**	-	-
% Total	6.7%	11.9%	1.9%	0.3%	**20.8%**	-	3.2%	13.9%	7.3%	0%	**24.5%**	-	5.7%	18.4%	7.0%	0.2%	**31.2%**	-	1.3%	19.0%	3.2%	0.1%	**23.6%**	-	-
PHF	0.929	0.981	0.900	0.700	**0.989**	-	0.781	0.799	0.883	-	**0.851**	-	0.870	0.925	0.945	0.500	**0.938**	-	0.682	0.813	0.797	0.375	**0.878**	-	0.954
Lights	315	554	90	14	**973**	-	151	650	343	0	**1144**	-	262	860	321	8	**1451**	-	58	879	152	3	**1092**	-	4660
% Lights	99.7%	98.8%	100%	100%	**99.2%**	-	98.7%	98.8%	99.1%	0%	**98.9%**	-	97.8%	99.2%	97.6%	100%	**98.6%**	-	96.7%	98.0%	99.3%	100%	**98.1%**	-	98.7%
Single-Unit Trucks	1	2	0	0	**3**	-	1	5	2	0	**8**	-	4	4	8	0	**16**	-	1	12	1	0	**14**	-	41
% Single-Unit Trucks	0.3%	0.4%	0%	0%	**0.3%**	-	0.7%	0.8%	0.6%	0%	**0.7%**	-	1.5%	0.5%	2.4%	0%	**1.1%**	-	1.7%	1.3%	0.7%	0%	**1.3%**	-	0.9%
Articulated Trucks	0	1	0	0	**1**	-	1	1	1	0	**3**	-	1	1	0	0	**2**	-	1	2	0	0	**3**	-	9
% Articulated Trucks	0%	0.2%	0%	0%	**0.1%**	-	0.7%	0.2%	0.3%	0%	**0.3%**	-	0.4%	0.1%	0%	0%	**0.1%**	-	1.7%	0.2%	0%	0%	**0.3%**	-	0.2%
Buses	0	4	0	0	**4**	-	0	2	0	0	**2**	-	1	1	0	0	**2**	-	0	1	0	0	**1**	-	9
% Buses	0%	0.7%	0%	0%	**0.4%**	-	0%	0.3%	0%	0%	**0.2%**	-	0.4%	0.1%	0%	0%	**0.1%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.2%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	3	0	0	**3**	-	4
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0.3%	0%	0%	**0.3%**	-	0.1%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	- 100%	-	-	-	-	-	- 100%	-	-	-	-	-	- 100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

S Arlington Heights Rd with E Algonquin Rd - TMC

Sat Jun 18, 2022
Midday Peak (WKND), PM Peak (WKND) (Jun 18 2022 1PM - 2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966117, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Algonquin+Road+and+Arlington+Heights+Road TMC - TMC

Thu May 11, 2023
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1066698, Location: 42.044284, -87.983099

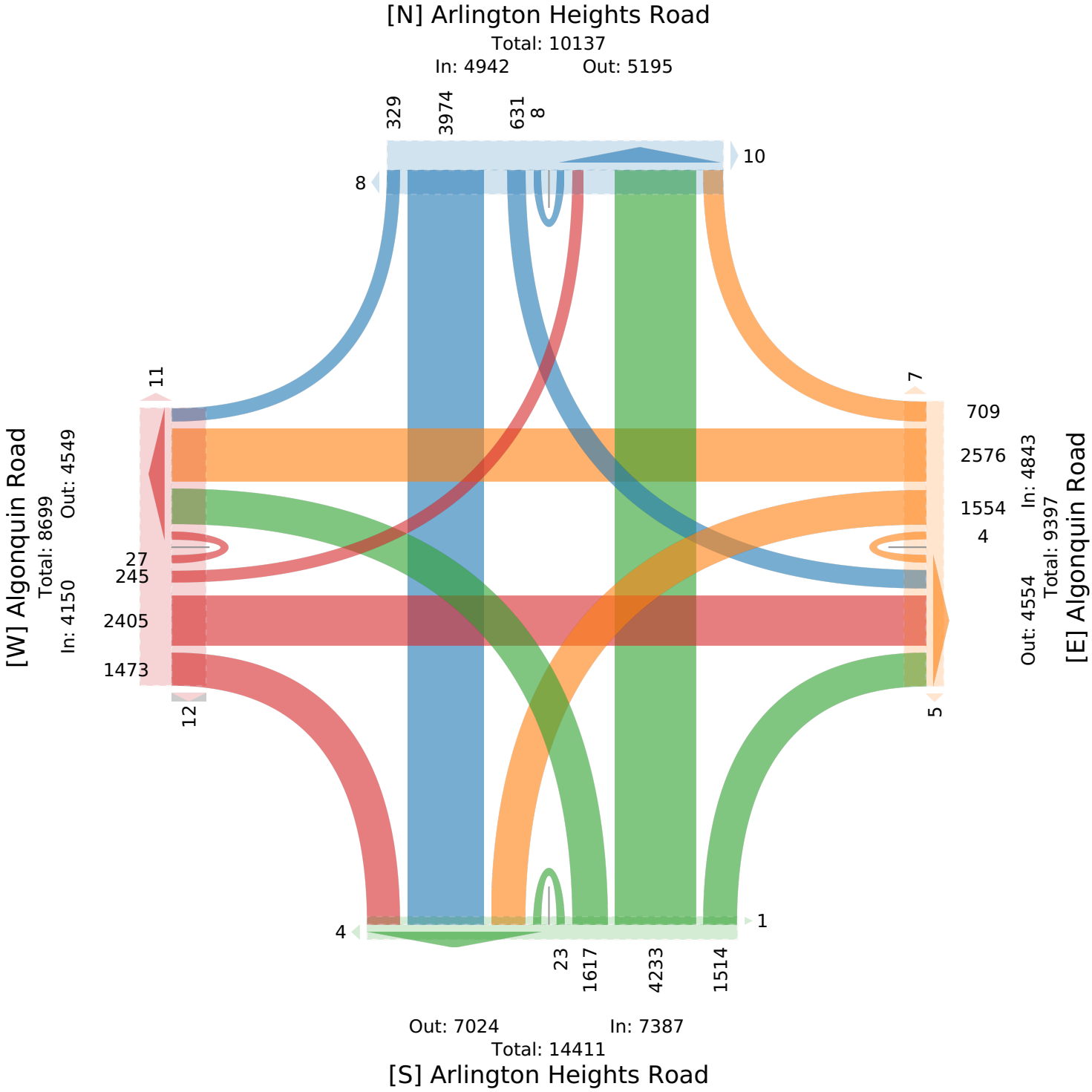
Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	Algonquin Road						Algonquin Road						Arlington Heights Road						Arlington Heights Road						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-05-11 7:00AM	63	105	12	1	**181**	0	22	84	79	0	**185**	0	58	187	84	0	**329**	0	12	176	41	0	**229**	0	**924**
7:15AM	96	124	6	1	**227**	1	30	121	102	0	**253**	0	75	196	55	0	**326**	0	15	225	22	0	**262**	0	**1068**
7:30AM	67	142	9	2	**220**	1	35	117	84	0	**236**	0	85	277	110	0	**472**	1	21	253	39	0	**313**	1	**1241**
7:45AM	84	154	11	0	**249**	1	42	139	87	0	**268**	0	88	244	94	0	**426**	0	27	223	32	0	**282**	0	**1225**
Hourly Total	310	525	38	4	**877**	3	129	461	352	0	**942**	0	306	904	343	0	**1553**	1	75	877	134	0	**1086**	1	**4458**
8:00AM	80	131	12	1	**224**	0	32	137	97	0	**266**	1	90	236	106	3	**435**	0	23	240	25	0	**288**	0	**1213**
8:15AM	92	138	12	0	**242**	0	47	125	92	0	**264**	0	97	230	74	3	**404**	0	18	253	27	0	**298**	0	**1208**
8:30AM	71	127	14	0	**212**	0	32	141	74	0	**247**	0	73	246	98	2	**419**	0	23	190	54	0	**267**	2	**1145**
8:45AM	79	88	17	3	**187**	0	37	137	67	0	**241**	0	87	208	86	1	**382**	0	26	152	40	1	**219**	0	**1029**
Hourly Total	322	484	55	4	**865**	0	148	540	330	0	**1018**	1	347	920	364	9	**1640**	0	90	835	146	1	**1072**	2	**4595**
4:00PM	120	172	18	2	**312**	4	58	211	135	0	**404**	2	94	294	103	0	**491**	0	19	282	35	1	**337**	5	**1544**
4:15PM	109	162	14	4	**289**	3	65	202	93	1	**361**	2	109	305	108	0	**522**	0	21	285	42	1	**349**	2	**1521**
4:30PM	142	181	20	2	**345**	5	55	201	122	0	**378**	1	105	273	100	0	**478**	1	27	300	61	3	**391**	2	**1592**
4:45PM	99	163	20	0	**282**	7	48	174	115	0	**337**	4	109	327	146	0	**582**	0	27	320	40	0	**387**	5	**1588**
Hourly Total	470	678	72	8	**1228**	19	226	788	465	1	**1480**	9	417	1199	457	0	**2073**	1	94	1187	178	5	**1464**	14	**6245**
5:00PM	121	192	33	2	**348**	0	66	232	113	0	**411**	0	123	305	112	4	**544**	1	23	314	45	0	**382**	0	**1685**
5:15PM	87	200	14	4	**305**	0	46	201	88	0	**335**	1	116	346	129	0	**591**	1	18	267	44	0	**329**	0	**1560**
5:30PM	83	166	13	3	**265**	1	47	181	101	1	**330**	0	110	304	102	6	**522**	0	16	253	42	2	**313**	1	**1430**
5:45PM	80	160	20	2	**262**	0	47	173	105	2	**327**	1	95	255	110	4	**464**	1	13	241	42	0	**296**	0	**1349**
Hourly Total	371	718	80	11	**1180**	1	206	787	407	3	**1403**	2	444	1210	453	14	**2121**	3	70	1075	173	2	**1320**	1	**6024**
Total	1473	2405	245	27	**4150**	23	709	2576	1554	4	**4843**	12	1514	4233	1617	23	**7387**	5	329	3974	631	8	**4942**	18	**21322**
% Approach	35.5%	58.0%	5.9%	0.7%	**-**	-	14.6%	53.2%	32.1%	0.1%	**-**	-	20.5%	57.3%	21.9%	0.3%	**-**	-	6.7%	80.4%	12.8%	0.2%	**-**	-	**-**
% Total	6.9%	11.3%	1.1%	0.1%	**19.5%**	-	3.3%	12.1%	7.3%	0%	**22.7%**	-	7.1%	19.9%	7.6%	0.1%	**34.6%**	-	1.5%	18.6%	3.0%	0%	**23.2%**	-	**-**
Lights	1443	2276	240	27	**3986**	-	672	2452	1488	4	**4616**	-	1441	4137	1567	23	**7168**	-	324	3899	588	8	**4819**	-	20589
% Lights	98.0%	94.6%	98.0%	100%	**96.0%**	-	94.8%	95.2%	95.8%	100%	**95.3%**	-	95.2%	97.7%	96.9%	100%	**97.0%**	-	98.5%	98.1%	93.2%	100%	**97.5%**	-	96.6%
Single-Unit Trucks	21	66	2	0	**89**	-	15	54	21	0	**90**	-	26	54	34	0	**114**	-	4	45	20	0	**69**	-	362
% Single-Unit Trucks	1.4%	2.7%	0.8%	0%	**2.1%**	-	2.1%	2.1%	1.4%	0%	**1.9%**	-	1.7%	1.3%	2.1%	0%	**1.5%**	-	1.2%	1.1%	3.2%	0%	**1.4%**	-	1.7%
Articulated Trucks	8	32	2	0	**42**	-	4	40	39	0	**83**	-	36	30	10	0	**76**	-	1	18	2	0	**21**	-	222
% Articulated Trucks	0.5%	1.3%	0.8%	0%	**1.0%**	-	0.6%	1.6%	2.5%	0%	**1.7%**	-	2.4%	0.7%	0.6%	0%	**1.0%**	-	0.3%	0.5%	0.3%	0%	**0.4%**	-	1.0%
Buses	1	31	1	0	**33**	-	18	29	6	0	**53**	-	11	12	6	0	**29**	-	0	12	21	0	**33**	-	148
% Buses	0.1%	1.3%	0.4%	0%	**0.8%**	-	2.5%	1.1%	0.4%	0%	**1.1%**	-	0.7%	0.3%	0.4%	0%	**0.4%**	-	0%	0.3%	3.3%	0%	**0.7%**	-	0.7%
Bicycles on Road	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	23	-	-	-	-	-	12	-	-	-	-	-	5	-	-	-	-	-	18	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Algonquin+Road+and+Arlington+Heights+Road TMC - TMC
Thu May 11, 2023
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1066698, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Algonquin+Road+and+Arlington+Heights+Road TMC - TMC

Thu May 11, 2023
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1066698, Location: 42.044284, -87.983099

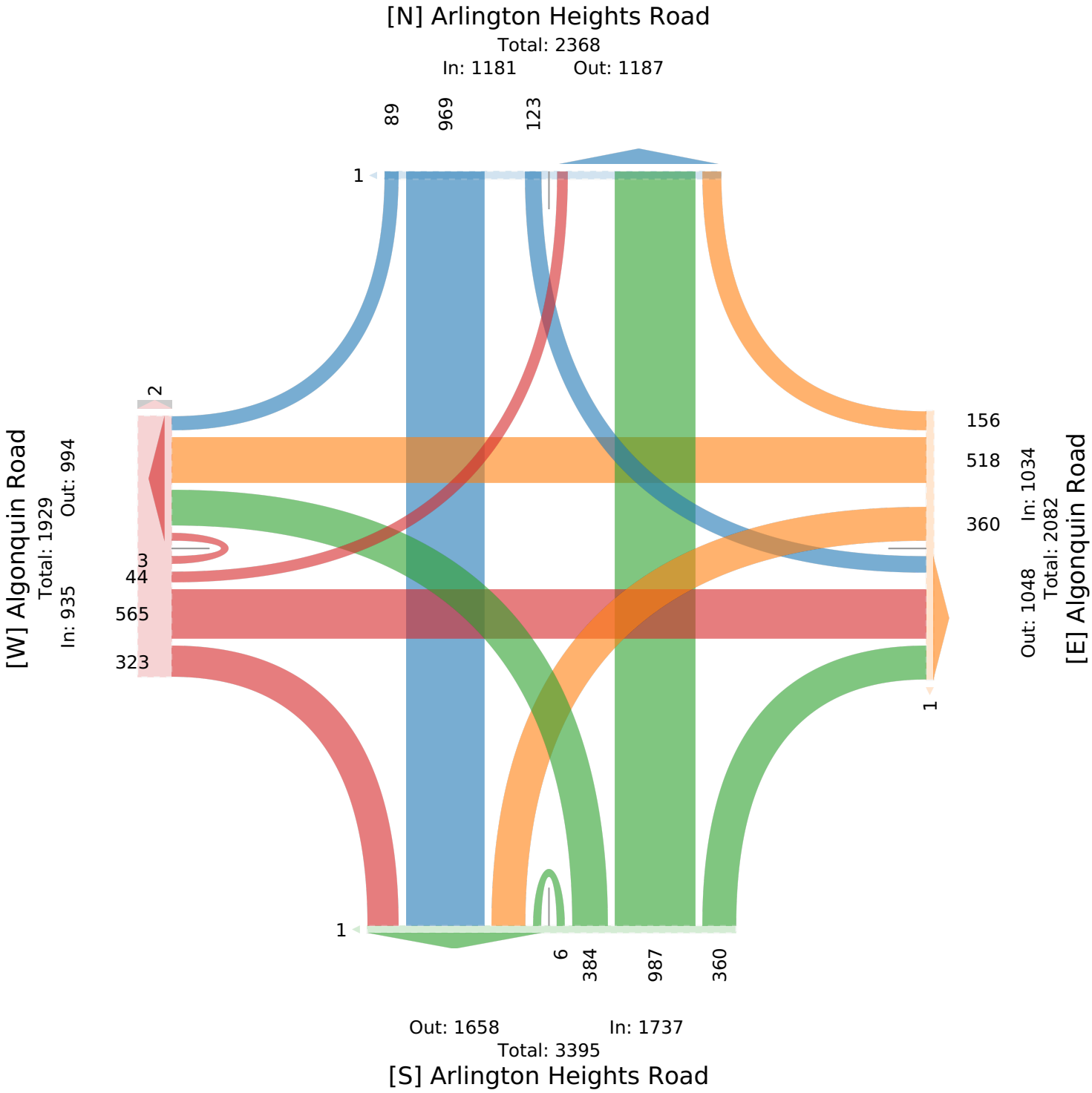
Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	Algonquin Road						Algonquin Road						Arlington Heights Road						Arlington Heights Road						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2023-05-11 7:30AM	67	142	9	2	**220**	1	35	117	84	0	**236**	0	85	277	110	0	**472**	1	21	253	39	0	**313**	1	**1241**
7:45AM	84	154	11	0	**249**	1	42	139	87	0	**268**	0	88	244	94	0	**426**	0	27	223	32	0	**282**	0	**1225**
8:00AM	80	131	12	1	**224**	0	32	137	97	0	**266**	1	90	236	106	3	**435**	0	23	240	25	0	**288**	0	**1213**
8:15AM	92	138	12	0	**242**	0	47	125	92	0	**264**	0	97	230	74	3	**404**	0	18	253	27	0	**298**	0	**1208**
Total	323	565	44	3	**935**	2	156	518	360	0	**1034**	1	360	987	384	6	**1737**	1	89	969	123	0	**1181**	1	**4887**
% Approach	34.5%	60.4%	4.7%	0.3%	**-**	-	15.1%	50.1%	34.8%	0%	**-**	-	20.7%	56.8%	22.1%	0.3%	**-**	-	7.5%	82.0%	10.4%	0%	**-**	-	**-**
% Total	6.6%	11.6%	0.9%	0.1%	**19.1%**	-	3.2%	10.6%	7.4%	0%	**21.2%**	-	7.4%	20.2%	7.9%	0.1%	**35.5%**	-	1.8%	19.8%	2.5%	0%	**24.2%**	-	**-**
PHF	0.878	0.917	0.917	0.375	**0.939**	-	0.830	0.932	0.928	-	**0.965**	-	0.928	0.891	0.873	0.500	**0.920**	-	0.824	0.958	0.788	-	**0.943**	-	0.984
Lights	309	539	42	3	**893**	-	137	479	340	0	**956**	-	333	955	366	6	**1660**	-	88	945	111	0	**1144**	-	4653
% Lights	95.7%	95.4%	95.5%	100%	**95.5%**	-	87.8%	92.5%	94.4%	0%	**92.5%**	-	92.5%	96.8%	95.3%	100%	**95.6%**	-	98.9%	97.5%	90.2%	0%	**96.9%**	-	95.2%
Single-Unit Trucks	10	17	1	0	**28**	-	5	15	5	0	**25**	-	11	18	12	0	**41**	-	1	13	4	0	**18**	-	112
% Single-Unit Trucks	3.1%	3.0%	2.3%	0%	**3.0%**	-	3.2%	2.9%	1.4%	0%	**2.4%**	-	3.1%	1.8%	3.1%	0%	**2.4%**	-	1.1%	1.3%	3.3%	0%	**1.5%**	-	2.3%
Articulated Trucks	4	3	1	0	**8**	-	1	15	12	0	**28**	-	11	8	3	0	**22**	-	0	8	0	0	**8**	-	66
% Articulated Trucks	1.2%	0.5%	2.3%	0%	**0.9%**	-	0.6%	2.9%	3.3%	0%	**2.7%**	-	3.1%	0.8%	0.8%	0%	**1.3%**	-	0%	0.8%	0%	0%	**0.7%**	-	1.4%
Buses	0	6	0	0	**6**	-	13	9	3	0	**25**	-	5	6	3	0	**14**	-	0	3	8	0	**11**	-	56
% Buses	0%	1.1%	0%	0%	**0.6%**	-	8.3%	1.7%	0.8%	0%	**2.4%**	-	1.4%	0.6%	0.8%	0%	**0.8%**	-	0%	0.3%	6.5%	0%	**0.9%**	-	1.1%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Algonquin+Road+and+Arlington+Heights+Road TMC - TMC
Thu May 11, 2023
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1066698, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Algonquin+Road+and+Arlington+Heights+Road TMC - TMC

Thu May 11, 2023
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1066698, Location: 42.044284, -87.983099

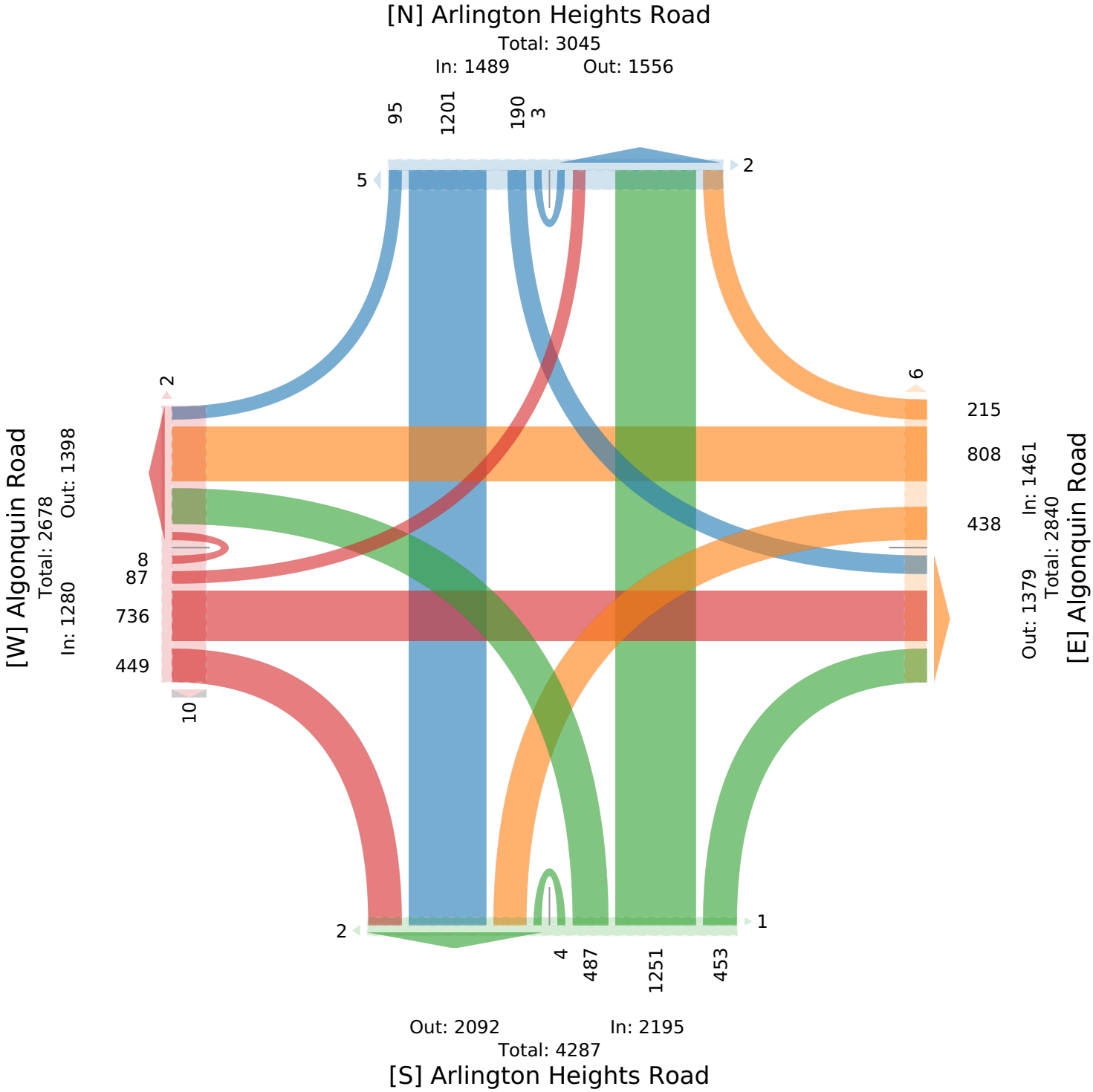
Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg / Direction	Algonquin Road Eastbound						Algonquin Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road Southbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2023-05-11 4:30PM	142	181	20	2	**345**	5	55	201	122	0	**378**	1	105	273	100	0	**478**	1	27	300	61	3	**391**	2	**1592**
4:45PM	99	163	20	0	**282**	7	48	174	115	0	**337**	4	109	327	146	0	**582**	0	27	320	40	0	**387**	5	**1588**
5:00PM	121	192	33	2	**348**	0	66	232	113	0	**411**	0	123	305	112	4	**544**	1	23	314	45	0	**382**	0	**1685**
5:15PM	87	200	14	4	**305**	0	46	201	88	0	**335**	1	116	346	129	0	**591**	1	18	267	44	0	**329**	0	**1560**
Total	449	736	87	8	**1280**	12	215	808	438	0	**1461**	6	453	1251	487	4	**2195**	3	95	1201	190	3	**1489**	7	**6425**
% Approach	35.1%	57.5%	6.8%	0.6%	**-**	-	14.7%	55.3%	30.0%	0%	**-**	-	20.6%	57.0%	22.2%	0.2%	**-**	-	6.4%	80.7%	12.8%	0.2%	**-**	-	-
% Total	7.0%	11.5%	1.4%	0.1%	**19.9%**	-	3.3%	12.6%	6.8%	0%	**22.7%**	-	7.1%	19.5%	7.6%	0.1%	**34.2%**	-	1.5%	18.7%	3.0%	0%	**23.2%**	-	-
PHF	0.790	0.920	0.659	0.500	**0.920**	-	0.814	0.870	0.898	-	**0.888**	-	0.921	0.904	0.834	0.250	**0.929**	-	0.880	0.938	0.779	0.250	**0.952**	-	0.953
Lights	447	695	87	8	**1237**	-	213	789	431	0	**1433**	-	439	1238	481	4	**2162**	-	94	1188	182	3	**1467**	-	6299
% Lights	99.6%	94.4%	100%	100%	**96.6%**	-	99.1%	97.6%	98.4%	0%	**98.1%**	-	96.9%	99.0%	98.8%	100%	**98.5%**	-	98.9%	98.9%	95.8%	100%	**98.5%**	-	98.0%
Single-Unit Trucks	1	18	0	0	**19**	-	2	7	4	0	**13**	-	3	6	6	0	**15**	-	1	12	4	0	**17**	-	64
% Single-Unit Trucks	0.2%	2.4%	0%	0%	**1.5%**	-	0.9%	0.9%	0.9%	0%	**0.9%**	-	0.7%	0.5%	1.2%	0%	**0.7%**	-	1.1%	1.0%	2.1%	0%	**1.1%**	-	1.0%
Articulated Trucks	1	16	0	0	**17**	-	0	9	3	0	**12**	-	10	7	0	0	**17**	-	0	1	0	0	**1**	-	47
% Articulated Trucks	0.2%	2.2%	0%	0%	**1.3%**	-	0%	1.1%	0.7%	0%	**0.8%**	-	2.2%	0.6%	0%	0%	**0.8%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.7%
Buses	0	7	0	0	**7**	-	0	2	0	0	**2**	-	1	0	0	0	**1**	-	0	0	4	0	**4**	-	14
% Buses	0%	1.0%	0%	0%	**0.5%**	-	0%	0.2%	0%	0%	**0.1%**	-	0.2%	0%	0%	0%	**0%**	-	0%	0%	2.1%	0%	**0.3%**	-	0.2%
Bicycles on Road	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	12	-	-	-	-	-	6	-	-	-	-	-	3	-	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Algonquin+Road+and+Arlington+Heights+Road TMC - TMC
Thu May 11, 2023
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1066698, Location: 42.044284, -87.983099

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Arlington Heights Road with Tonne Drive - TMC

Thu May 11, 2023
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1071718, Location: 42.043225, -87.980451

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	Arlington Heights Road						Arlington Heights Road						Tonne Road						Tonne Road						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2023-05-11 7:00AM	3	183	18	0	**204**	0	1	158	1	0	**160**	1	1	0	3	0	**4**	3	40	0	3	0	**43**	0	**411**
7:15AM	1	224	16	2	**243**	0	3	188	1	0	**192**	0	1	0	2	0	**3**	3	43	0	2	0	**45**	0	**483**
7:30AM	8	229	34	0	**271**	0	5	209	0	0	**214**	1	0	0	0	0	**0**	3	48	0	6	0	**54**	0	**539**
7:45AM	5	280	22	1	**308**	0	5	219	4	0	**228**	0	1	1	1	0	**3**	0	40	1	4	0	**45**	0	**584**
Hourly Total	17	916	90	3	**1026**	0	14	774	6	0	**794**	2	3	1	6	0	**10**	9	171	1	15	0	**187**	0	**2017**
8:00AM	6	211	24	0	**241**	0	2	215	0	0	**217**	0	1	0	1	0	**2**	0	46	0	3	0	**49**	0	**509**
8:15AM	1	231	15	0	**247**	0	3	225	0	3	**231**	0	2	0	1	0	**3**	0	31	0	3	0	**34**	0	**515**
8:30AM	5	234	25	0	**264**	0	2	187	0	3	**192**	0	0	0	0	0	**0**	0	31	0	4	0	**35**	0	**491**
8:45AM	4	192	22	0	**218**	0	0	193	0	1	**194**	1	2	1	2	0	**5**	0	28	0	1	0	**29**	0	**446**
Hourly Total	16	868	86	0	**970**	0	7	820	0	7	**834**	1	5	1	4	0	**10**	0	136	0	11	0	**147**	0	**1961**
4:00PM	1	244	34	3	**282**	0	14	349	0	0	**363**	0	1	0	11	0	**12**	0	54	2	5	0	**61**	3	**718**
4:15PM	1	274	45	0	**320**	0	8	310	1	0	**319**	0	2	0	4	0	**6**	0	33	0	10	0	**43**	0	**688**
4:30PM	3	252	33	0	**288**	0	6	328	1	0	**335**	0	2	3	8	0	**13**	0	44	0	9	0	**53**	0	**689**
4:45PM	1	298	9	0	**308**	0	1	295	1	0	**297**	0	1	1	8	0	**10**	0	30	0	7	0	**37**	0	**652**
Hourly Total	6	1068	121	3	**1198**	0	29	1282	3	0	**1314**	0	6	4	31	0	**41**	0	161	2	31	0	**194**	3	**2747**
5:00PM	1	271	59	1	**332**	0	8	335	1	0	**344**	0	1	0	7	0	**8**	1	54	0	5	0	**59**	1	**743**
5:15PM	2	305	62	0	**369**	0	9	265	3	0	**277**	4	1	2	6	0	**9**	0	38	0	9	0	**47**	1	**702**
5:30PM	1	254	56	1	**312**	0	9	272	2	0	**283**	0	3	0	3	0	**6**	0	34	0	6	0	**40**	1	**641**
5:45PM	1	238	58	1	**298**	0	10	237	2	0	**249**	0	1	0	1	0	**2**	0	59	0	5	0	**64**	0	**613**
Hourly Total	5	1068	235	3	**1311**	0	36	1109	8	0	**1153**	4	6	2	17	0	**25**	1	185	0	25	0	**210**	3	**2699**
Total	44	3920	532	9	**4505**	0	86	3985	17	7	**4095**	7	20	8	58	0	**86**	10	653	3	82	0	**738**	6	**9424**
% Approach	1.0%	87.0%	11.8%	0.2%	**-**	-	2.1%	97.3%	0.4%	0.2%	**-**	-	23.3%	9.3%	67.4%	0%	**-**	-	88.5%	0.4%	11.1%	0%	**-**	-	-
% Total	0.5%	41.6%	5.6%	0.1%	**47.8%**	-	0.9%	42.3%	0.2%	0.1%	**43.5%**	-	0.2%	0.1%	0.6%	0%	**0.9%**	-	6.9%	0%	0.9%	0%	**7.8%**	-	-
Lights	42	3674	526	9	**4251**	-	85	3778	17	5	**3885**	-	18	7	56	0	**81**	-	642	3	79	0	**724**	-	8941
% Lights	95.5%	93.7%	98.9%	100%	**94.4%**	-	98.8%	94.8%	100%	71.4%	**94.9%**	-	90.0%	87.5%	96.6%	0%	**94.2%**	-	98.3%	100%	96.3%	0%	**98.1%**	-	94.9%
Single-Unit Trucks	0	112	3	0	**115**	-	0	97	0	0	**97**	-	1	1	0	0	**2**	-	6	0	2	0	**8**	-	222
% Single-Unit Trucks	0%	2.9%	0.6%	0%	**2.6%**	-	0%	2.4%	0%	0%	**2.4%**	-	5.0%	12.5%	0%	0%	**2.3%**	-	0.9%	0%	2.4%	0%	**1.1%**	-	2.4%
Articulated Trucks	0	77	0	0	**77**	-	0	74	0	0	**74**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	151
% Articulated Trucks	0%	2.0%	0%	0%	**1.7%**	-	0%	1.9%	0%	0%	**1.8%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.6%
Buses	1	57	3	0	**61**	-	1	35	0	2	**38**	-	1	0	2	0	**3**	-	5	0	1	0	**6**	-	108
% Buses	2.3%	1.5%	0.6%	0%	**1.4%**	-	1.2%	0.9%	0%	28.6%	**0.9%**	-	5.0%	0%	3.4%	0%	**3.5%**	-	0.8%	0%	1.2%	0%	**0.8%**	-	1.1%
Bicycles on Road	1	0	0	0	**1**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	2
% Bicycles on Road	2.3%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	10	-	-	-	-	-	6	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Arlington Heights Road with Tonne Drive - TMC

Thu May 11, 2023
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1071718, Location: 42.043225, -87.980451

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
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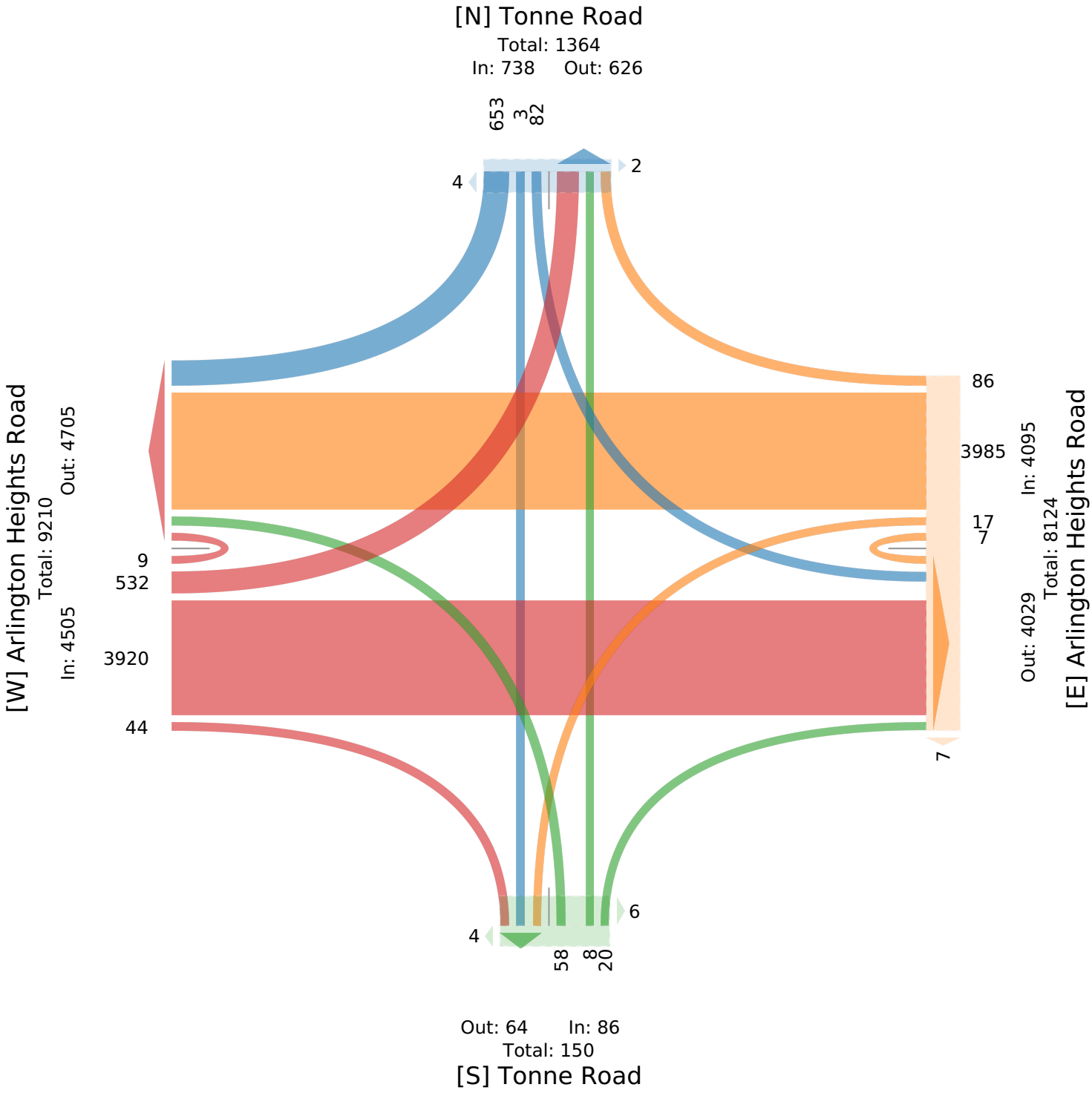


Arlington Heights Road with Tonne Drive - TMC

Thu May 11, 2023
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1071718, Location: 42.043225, -87.980451

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

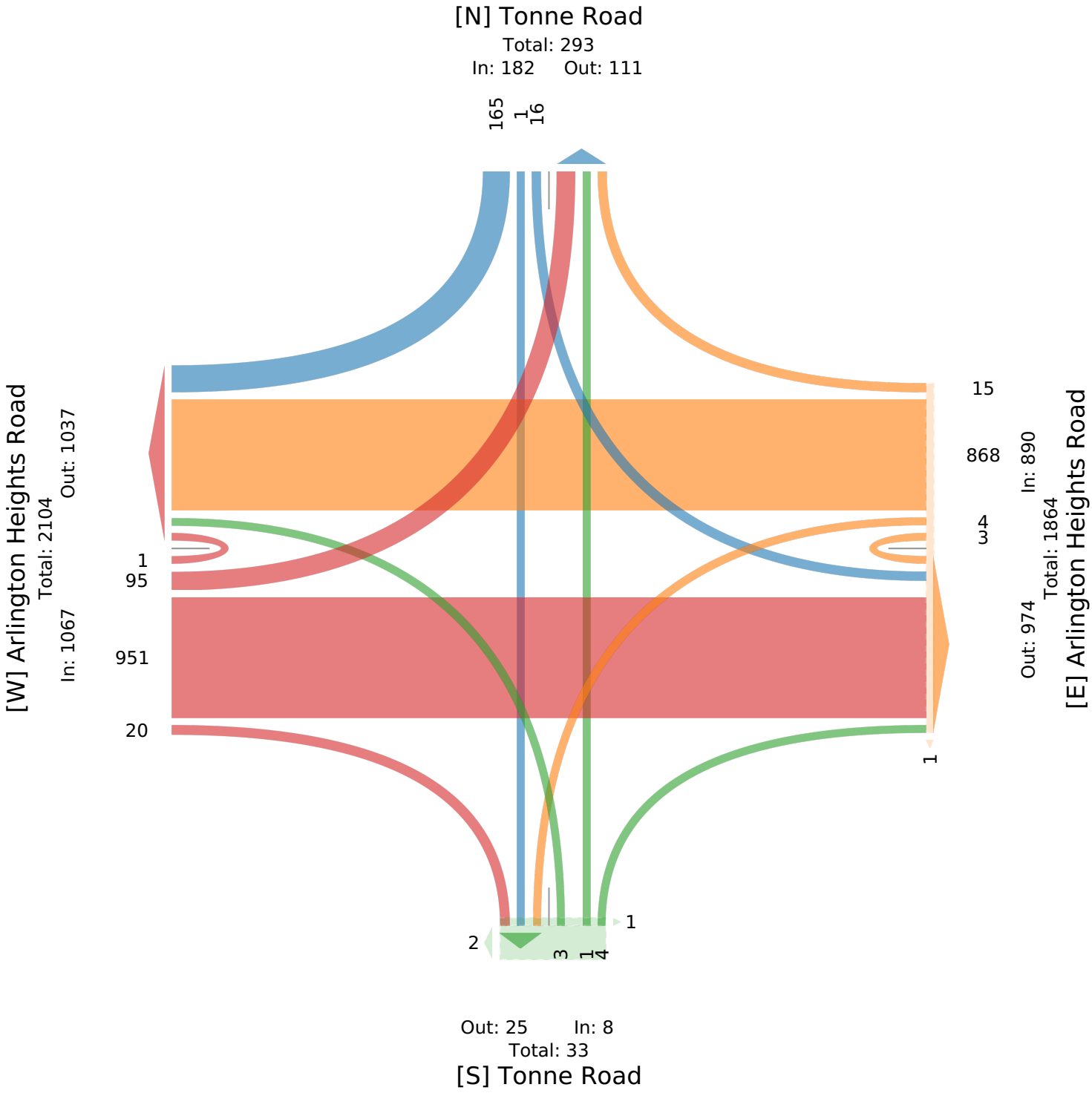
Leg	Arlington Heights Road						Arlington Heights Road						Tonne Road						Tonne Road						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2023-05-11 7:30AM	8	229	34	0	**271**	0	5	209	0	0	**214**	1	0	0	0	0	**0**	3	48	0	6	0	**54**	0	**539**
7:45AM	5	280	22	1	**308**	0	5	219	4	0	**228**	0	1	1	1	0	**3**	0	40	1	4	0	**45**	0	**584**
8:00AM	6	211	24	0	**241**	0	2	215	0	0	**217**	0	1	0	1	0	**2**	0	46	0	3	0	**49**	0	**509**
8:15AM	1	231	15	0	**247**	0	3	225	0	3	**231**	0	2	0	1	0	**3**	0	31	0	3	0	**34**	0	**515**
Total	20	951	95	1	**1067**	0	15	868	4	3	**890**	1	4	1	3	0	**8**	3	165	1	16	0	**182**	0	**2147**
% Approach	1.9%	89.1%	8.9%	0.1%	**-**	-	1.7%	97.5%	0.4%	0.3%	**-**	-	50.0%	12.5%	37.5%	0%	**-**	-	90.7%	0.5%	8.8%	0%	**-**	-	-
% Total	0.9%	44.3%	4.4%	0%	**49.7%**	-	0.7%	40.4%	0.2%	0.1%	**41.5%**	-	0.2%	0%	0.1%	0%	**0.4%**	-	7.7%	0%	0.7%	0%	**8.5%**	-	-
PHF	0.679	0.849	0.699	0.250	**0.865**	-	0.750	0.964	0.250	0.250	**0.963**	-	0.500	0.250	0.750	-	**0.667**	-	0.859	0.250	0.667	-	**0.843**	-	0.919
Lights	19	886	92	1	**998**	-	14	793	4	1	**812**	-	3	1	3	0	**7**	-	160	1	15	0	**176**	-	1993
% Lights	95.0%	93.2%	96.8%	100%	**93.5%**	-	93.3%	91.4%	100%	33.3%	**91.2%**	-	75.0%	100%	100%	0%	**87.5%**	-	97.0%	100%	93.8%	0%	**96.7%**	-	92.8%
Single-Unit Trucks	0	30	2	0	**32**	-	0	39	0	0	**39**	-	0	0	0	0	**0**	-	4	0	1	0	**5**	-	76
% Single-Unit Trucks	0%	3.2%	2.1%	0%	**3.0%**	-	0%	4.5%	0%	0%	**4.4%**	-	0%	0%	0%	0%	**0%**	-	2.4%	0%	6.3%	0%	**2.7%**	-	3.5%
Articulated Trucks	0	17	0	0	**17**	-	0	19	0	0	**19**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	36
% Articulated Trucks	0%	1.8%	0%	0%	**1.6%**	-	0%	2.2%	0%	0%	**2.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.7%
Buses	0	18	1	0	**19**	-	1	17	0	2	**20**	-	1	0	0	0	**1**	-	1	0	0	0	**1**	-	41
% Buses	0%	1.9%	1.1%	0%	**1.8%**	-	6.7%	2.0%	0%	66.7%	**2.2%**	-	25.0%	0%	0%	0%	**12.5%**	-	0.6%	0%	0%	0%	**0.5%**	-	1.9%
Bicycles on Road	1	0	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1
% Bicycles on Road	5.0%	0%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Arlington Heights Road with Tonne Drive - TMC

Thu May 11, 2023
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1071718, Location: 42.043225, -87.980451

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Arlington Heights Road with Tonne Drive - TMC

Thu May 11, 2023
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1071718, Location: 42.043225, -87.980451

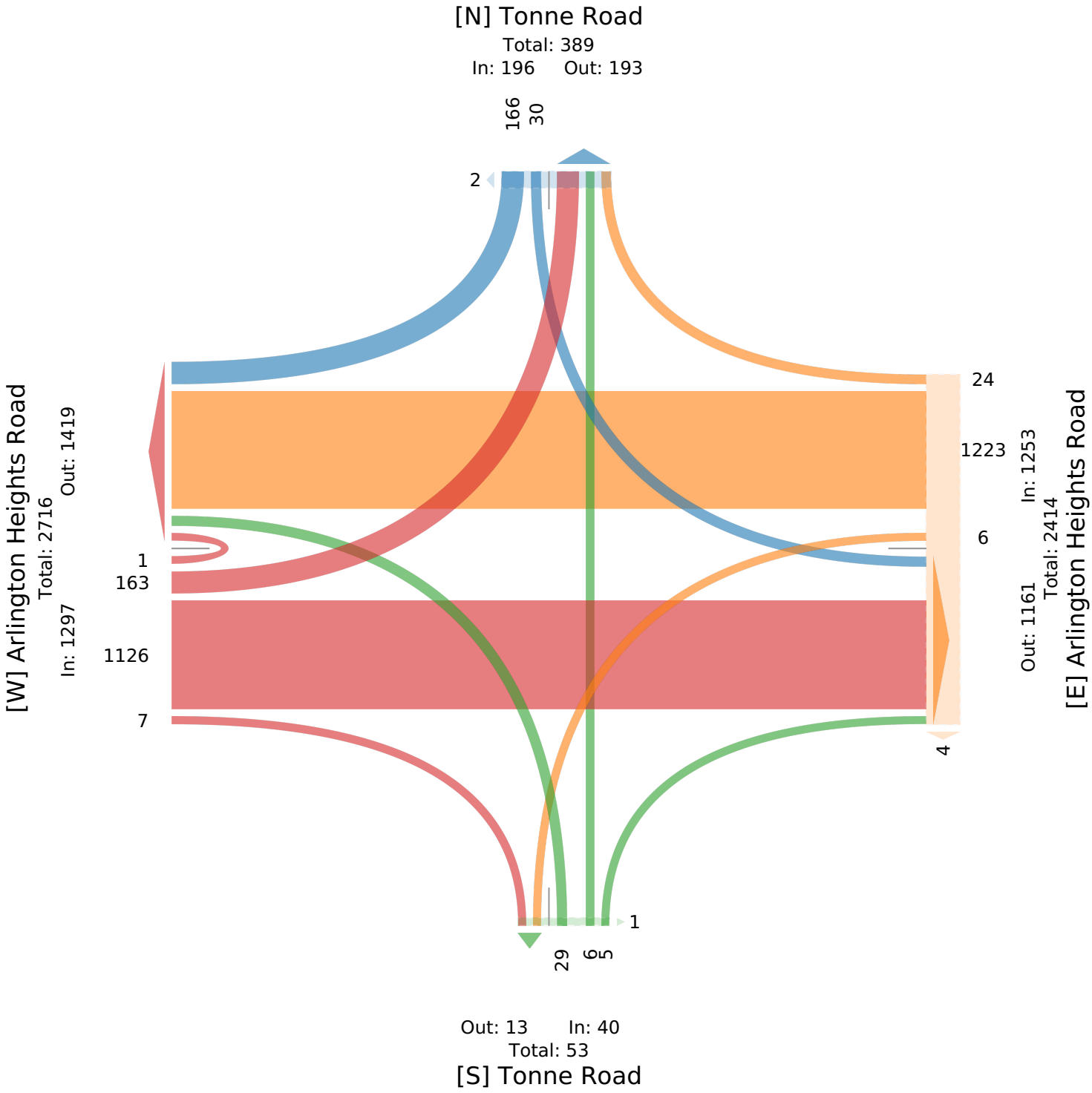
Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg / Direction	Arlington Heights Road Eastbound						Arlington Heights Road Westbound						Tonne Road Northbound						Tonne Road Southbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2023-05-11 4:30PM	3	252	33	0	**288**	0	6	328	1	0	**335**	0	2	3	8	0	**13**	0	44	0	9	0	**53**	0	**689**
4:45PM	1	298	9	0	**308**	0	1	295	1	0	**297**	0	1	1	8	0	**10**	0	30	0	7	0	**37**	0	**652**
5:00PM	1	271	59	1	**332**	0	8	335	1	0	**344**	0	1	0	7	0	**8**	1	54	0	5	0	**59**	1	**743**
5:15PM	2	305	62	0	**369**	0	9	265	3	0	**277**	4	1	2	6	0	**9**	0	38	0	9	0	**47**	1	**702**
Total	7	1126	163	1	**1297**	0	24	1223	6	0	**1253**	4	5	6	29	0	**40**	1	166	0	30	0	**196**	2	**2786**
% Approach	0.5%	86.8%	12.6%	0.1%	**-**	-	1.9%	97.6%	0.5%	0%	**-**	-	12.5%	15.0%	72.5%	0%	**-**	-	84.7%	0%	15.3%	0%	**-**	-	-
% Total	0.3%	40.4%	5.9%	0%	**46.6%**	-	0.9%	43.9%	0.2%	0%	**45.0%**	-	0.2%	0.2%	1.0%	0%	**1.4%**	-	6.0%	0%	1.1%	0%	**7.0%**	-	-
PHF	0.583	0.923	0.657	0.250	**0.879**	-	0.667	0.913	0.500	-	**0.911**	-	0.625	0.500	0.906	-	**0.769**	-	0.769	-	0.833	-	**0.831**	-	0.937
Lights	7	1066	163	1	**1237**	-	24	1198	6	0	**1228**	-	4	6	29	0	**39**	-	165	0	29	0	**194**	-	2698
% Lights	100%	94.7%	100%	100%	**95.4%**	-	100%	98.0%	100%	0%	**98.0%**	-	80.0%	100%	100%	0%	**97.5%**	-	99.4%	0%	96.7%	0%	**99.0%**	-	96.8%
Single-Unit Trucks	0	23	0	0	**23**	-	0	8	0	0	**8**	-	1	0	0	0	**1**	-	0	0	0	0	**0**	-	32
% Single-Unit Trucks	0%	2.0%	0%	0%	**1.8%**	-	0%	0.7%	0%	0%	**0.6%**	-	20.0%	0%	0%	0%	**2.5%**	-	0%	0%	0%	0%	**0%**	-	1.1%
Articulated Trucks	0	25	0	0	**25**	-	0	16	0	0	**16**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	41
% Articulated Trucks	0%	2.2%	0%	0%	**1.9%**	-	0%	1.3%	0%	0%	**1.3%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.5%
Buses	0	12	0	0	**12**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	1	0	1	0	**2**	-	15
% Buses	0%	1.1%	0%	0%	**0.9%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0.6%	0%	3.3%	0%	**1.0%**	-	0.5%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Arlington Heights Road with Tonne Drive - TMC
Thu May 11, 2023
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 1071718, Location: 42.043225, -87.980451

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Arlington Heights Rd with Guitar Center Acce... - TMC

Thu Jun 16, 2022
Full Length (7 AM-9 AM, 4 PM-6 PM, 11:30 AM-2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	I-90 Ramp		Guitar Center Access Drive					S Arlington Heights Rd					S Arlington Heights Rd					
Direction	Eastbound		Westbound					Northbound					Southbound					
Time	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-06-16 7:00AM	**0**	0	0	0	0	**0**	0	3	273	0	**276**	0	83	254	0	0	**337**	0	**613**
7:15AM	**0**	0	1	0	0	**1**	0	4	332	0	**336**	0	84	263	0	0	**347**	0	**684**
7:30AM	**0**	0	0	0	0	**0**	0	4	399	0	**403**	0	94	297	0	0	**391**	0	**794**
7:45AM	**0**	0	0	0	0	**0**	0	2	469	0	**471**	0	107	289	0	0	**396**	0	**867**
Hourly Total	**0**	0	1	0	0	**1**	0	13	1473	0	**1486**	0	368	1103	0	0	**1471**	0	**2958**
8:00AM	**0**	0	0	0	0	**0**	0	3	334	0	**337**	0	78	304	0	0	**382**	0	**719**
8:15AM	**0**	0	1	0	0	**1**	0	3	378	0	**381**	0	89	290	0	0	**379**	0	**761**
8:30AM	**0**	0	0	0	0	**0**	0	3	361	0	**364**	0	84	274	0	0	**358**	0	**722**
8:45AM	**0**	1	0	0	0	**0**	0	3	349	0	**352**	0	82	242	0	0	**324**	0	**676**
Hourly Total	**0**	1	1	0	0	**1**	0	12	1422	0	**1434**	0	333	1110	0	0	**1443**	0	**2878**
4:00PM	**0**	0	3	0	0	**3**	3	4	404	0	**408**	0	125	370	0	0	**495**	0	**906**
4:15PM	**0**	0	1	0	0	**1**	0	2	487	0	**489**	0	106	325	0	0	**431**	0	**921**
4:30PM	**0**	0	3	0	0	**3**	0	4	468	0	**472**	0	142	368	0	0	**510**	0	**985**
4:45PM	**0**	0	2	0	0	**2**	0	6	463	0	**469**	0	124	323	0	0	**447**	0	**918**
Hourly Total	**0**	0	9	0	0	**9**	3	16	1822	0	**1838**	0	497	1386	0	0	**1883**	0	**3730**
5:00PM	**0**	0	4	0	0	**4**	0	3	532	0	**535**	0	121	332	0	0	**453**	0	**992**
5:15PM	**0**	0	0	0	0	**0**	0	1	525	0	**526**	0	111	330	0	0	**441**	0	**967**
5:30PM	**0**	0	2	0	0	**2**	0	4	488	0	**492**	0	99	332	0	0	**431**	0	**925**
5:45PM	**0**	0	2	0	0	**2**	0	7	486	0	**493**	0	76	286	0	0	**362**	0	**857**
Hourly Total	**0**	0	8	0	0	**8**	0	15	2031	0	**2046**	0	407	1280	0	0	**1687**	0	**3741**
2022-06-18 11:30AM	**0**	0	7	0	0	**7**	2	7	343	0	**350**	0	109	306	0	0	**415**	0	**772**
11:45AM	**0**	0	6	0	0	**6**	0	5	375	0	**380**	0	105	299	0	0	**404**	0	**790**
Hourly Total	**0**	0	13	0	0	**13**	2	12	718	0	**730**	0	214	605	0	0	**819**	0	**1562**
12:00PM	**0**	0	3	0	0	**3**	0	8	382	0	**390**	0	110	300	0	0	**410**	0	**803**
12:15PM	**0**	0	8	0	0	**8**	0	4	417	0	**421**	0	97	254	0	0	**351**	0	**780**
12:30PM	**0**	0	4	0	0	**4**	0	4	365	0	**369**	0	105	269	0	0	**374**	0	**747**
12:45PM	**0**	0	4	0	0	**4**	0	5	383	0	**388**	0	100	269	0	0	**369**	0	**761**
Hourly Total	**0**	0	19	0	0	**19**	0	21	1547	0	**1568**	0	412	1092	0	0	**1504**	0	**3091**
1:00PM	**0**	0	4	0	0	**4**	0	3	369	0	**372**	0	83	314	0	0	**397**	0	**773**
1:15PM	**0**	0	2	0	0	**2**	0	3	412	0	**415**	0	90	266	0	0	**356**	0	**773**
1:30PM	**0**	0	3	0	0	**3**	0	6	349	0	**355**	0	124	260	0	0	**384**	0	**742**
1:45PM	**0**	0	3	0	0	**3**	0	5	345	0	**350**	0	107	316	0	0	**423**	0	**776**
Hourly Total	**0**	0	12	0	0	**12**	0	17	1475	0	**1492**	0	404	1156	0	0	**1560**	0	**3064**
Total	**0**	1	63	0	0	**63**	5	106	10488	0	**10594**	0	2635	7732	0	0	**10367**	0	**21024**
% Approach	**-**	-	100%	0%	0%	**-**	-	1.0%	99.0%	0%	**-**	-	25.4%	74.6%	0%	0%	**-**	-	-
% Total	**0%**	-	0.3%	0%	0%	**0.3%**	-	0.5%	49.9%	0%	**50.4%**	-	12.5%	36.8%	0%	0%	**49.3%**	-	-
Lights	**0**	-	63	0	0	**63**	-	105	10223	0	**10328**	-	2527	7594	0	0	**10121**	-	20512
% Lights	**-**	-	100%	0%	0%	**100%**	-	99.1%	97.5%	0%	**97.5%**	-	95.9%	98.2%	0%	0%	**97.6%**	-	97.6%
Single-Unit Trucks	**0**	-	0	0	0	**0**	-	0	147	0	**147**	-	48	98	0	0	**146**	-	293
% Single-Unit Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	1.4%	0%	**1.4%**	-	1.8%	1.3%	0%	0%	**1.4%**	-	1.4%
Articulated Trucks	**0**	-	0	0	0	**0**	-	0	105	0	**105**	-	57	26	0	0	**83**	-	188
% Articulated Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	1.0%	0%	**1.0%**	-	2.2%	0.3%	0%	0%	**0.8%**	-	0.9%
Buses	**0**	-	0	0	0	**0**	-	0	13	0	**13**	-	3	13	0	0	**16**	-	29
% Buses	**-**	-	0%	0%	0%	**0%**	-	0%	0.1%	0%	**0.1%**	-	0.1%	0.2%	0%	0%	**0.2%**	-	0.1%
Bicycles on Road	**0**	-	0	0	0	**0**	-	1	0	0	**1**	-	0	1	0	0	**1**	-	2
% Bicycles on Road	**-**	-	0%	0%	0%	**0%**	-	0.9%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	1	-	-	-	-	5	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	100%	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Arlington Heights Rd with Guitar Center Acce... - TMC
Thu Jun 16, 2022
Full Length (7 AM-9 AM, 4 PM-6 PM, 11:30 AM-2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
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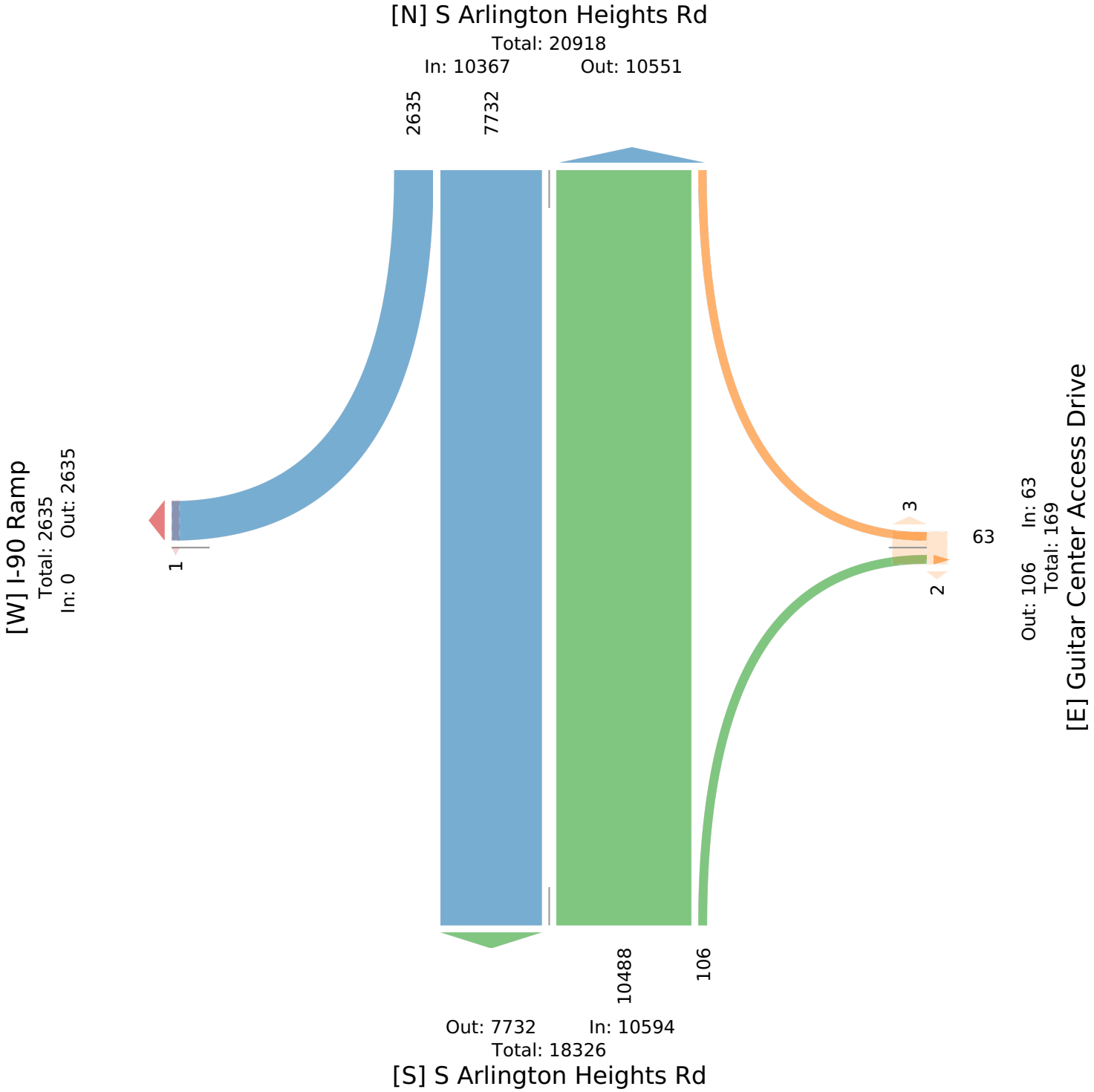

Arlington Heights Rd with Guitar Center Acce... - TMC

Thu Jun 16, 2022
AM Peak (Jun 16 2022 7:30AM - 8:30 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	I-90 Ramp		Guitar Center Access Drive					S Arlington Heights Rd					S Arlington Heights Rd					
Direction	Eastbound		Westbound					Northbound					Southbound					
Time	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-06-16 7:30AM	**0**	0	0	0	0	**0**	0	4	399	0	**403**	0	94	297	0	0	**391**	0	**794**
7:45AM	**0**	0	0	0	0	**0**	0	2	469	0	**471**	0	107	289	0	0	**396**	0	**867**
8:00AM	**0**	0	0	0	0	**0**	0	3	334	0	**337**	0	78	304	0	0	**382**	0	**719**
8:15AM	**0**	0	1	0	0	**1**	0	3	378	0	**381**	0	89	290	0	0	**379**	0	**761**
Total	**0**	0	1	0	0	**1**	0	12	1580	0	**1592**	0	368	1180	0	0	**1548**	0	**3141**
% Approach	**-**	-	100%	0%	0%	**-**	-	0.8%	99.2%	0%	**-**	-	23.8%	76.2%	0%	0%	**-**	-	**-**
% Total	**0%**	-	0%	0%	0%	**0%**	-	0.4%	50.3%	0%	**50.7%**	-	11.7%	37.6%	0%	0%	**49.3%**	-	**-**
PHF	**-**	-	0.250	-	-	**0.250**	-	0.750	0.842	-	**0.845**	-	0.860	0.970	-	-	**0.977**	-	0.906
Lights	**0**	-	1	0	0	**1**	-	12	1507	0	**1519**	-	333	1148	0	0	**1481**	-	3001
% Lights	**-**	-	100%	0%	0%	**100%**	-	100%	95.4%	0%	**95.4%**	-	90.5%	97.3%	0%	0%	**95.7%**	-	95.5%
Single-Unit Trucks	**0**	-	0	0	0	**0**	-	0	37	0	**37**	-	16	26	0	0	**42**	-	79
% Single-Unit Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	2.3%	0%	**2.3%**	-	4.3%	2.2%	0%	0%	**2.7%**	-	2.5%
Articulated Trucks	**0**	-	0	0	0	**0**	-	0	32	0	**32**	-	18	5	0	0	**23**	-	55
% Articulated Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	2.0%	0%	**2.0%**	-	4.9%	0.4%	0%	0%	**1.5%**	-	1.8%
Buses	**0**	-	0	0	0	**0**	-	0	4	0	**4**	-	1	1	0	0	**2**	-	6
% Buses	**-**	-	0%	0%	0%	**0%**	-	0%	0.3%	0%	**0.3%**	-	0.3%	0.1%	0%	0%	**0.1%**	-	0.2%
Bicycles on Road	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	**-**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Arlington Heights Rd with Guitar Center Acce... - TMC
Thu Jun 16, 2022
AM Peak (Jun 16 2022 7:30AM - 8:30 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

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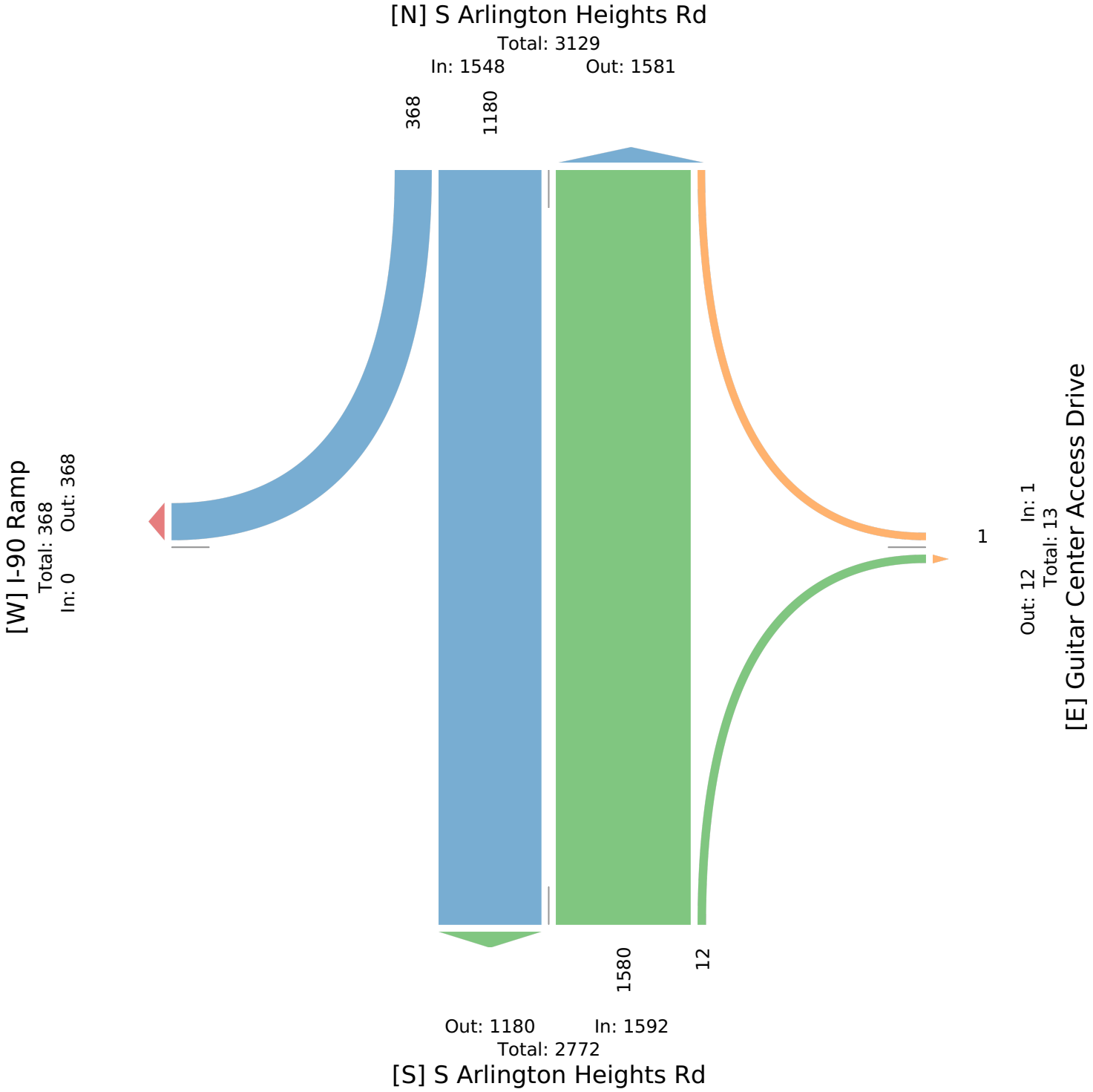


Arlington Heights Rd with Guitar Center Acce... - TMC

Thu Jun 16, 2022
PM Peak (Jun 16 2022 4:30PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

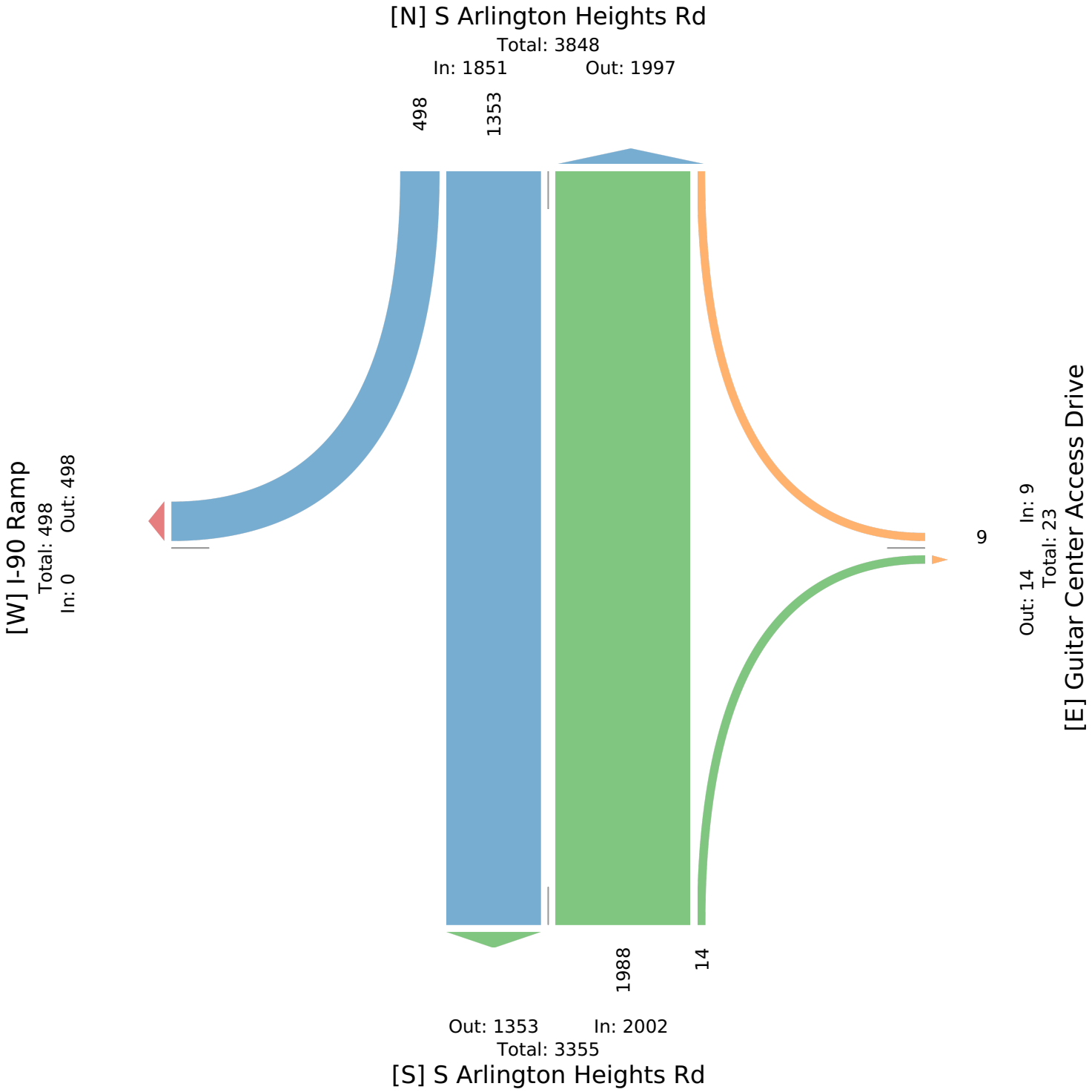
Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	I-90 Ramp		Guitar Center Access Drive					S Arlington Heights Rd					S Arlington Heights Rd					
Direction	Eastbound		Westbound					Northbound					Southbound					
Time	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-06-16 4:30PM	**0**	0	3	0	0	**3**	0	4	468	0	**472**	0	142	368	0	0	**510**	0	**985**
4:45PM	**0**	0	2	0	0	**2**	0	6	463	0	**469**	0	124	323	0	0	**447**	0	**918**
5:00PM	**0**	0	4	0	0	**4**	0	3	532	0	**535**	0	121	332	0	0	**453**	0	**992**
5:15PM	**0**	0	0	0	0	**0**	0	1	525	0	**526**	0	111	330	0	0	**441**	0	**967**
Total	**0**	0	9	0	0	**9**	0	14	1988	0	**2002**	0	498	1353	0	0	**1851**	0	**3862**
% Approach	**-**	-	100%	0%	0%	**-**	-	0.7%	99.3%	0%	**-**	-	26.9%	73.1%	0%	0%	**-**	-	**-**
% Total	**0%**	-	0.2%	0%	0%	**0.2%**	-	0.4%	51.5%	0%	**51.8%**	-	12.9%	35.0%	0%	0%	**47.9%**	-	**-**
PHF	**-**	-	0.563	-	-	**0.563**	-	0.583	0.934	-	**0.936**	-	0.877	0.919	-	-	**0.907**	-	0.973
Lights	**0**	-	9	0	0	**9**	-	14	1964	0	**1978**	-	488	1334	0	0	**1822**	-	3809
% Lights	**-**	-	100%	0%	0%	**100%**	-	100%	98.8%	0%	**98.8%**	-	98.0%	98.6%	0%	0%	**98.4%**	-	98.6%
Single-Unit Trucks	**0**	-	0	0	0	**0**	-	0	11	0	**11**	-	4	14	0	0	**18**	-	29
% Single-Unit Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	0.6%	0%	**0.5%**	-	0.8%	1.0%	0%	0%	**1.0%**	-	0.8%
Articulated Trucks	**0**	-	0	0	0	**0**	-	0	13	0	**13**	-	6	4	0	0	**10**	-	23
% Articulated Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	0.7%	0%	**0.6%**	-	1.2%	0.3%	0%	0%	**0.5%**	-	0.6%
Buses	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0	1	0	0	**1**	-	1
% Buses	**-**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%
Bicycles on Road	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	**-**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Arlington Heights Rd with Guitar Center Acce... - TMC
Thu Jun 16, 2022
PM Peak (Jun 16 2022 4:30PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Arlington Heights Rd with Guitar Center Acce... - TMC

Sat Jun 18, 2022
Midday Peak (WKND) (Jun 18 2022 11:30AM - 12:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

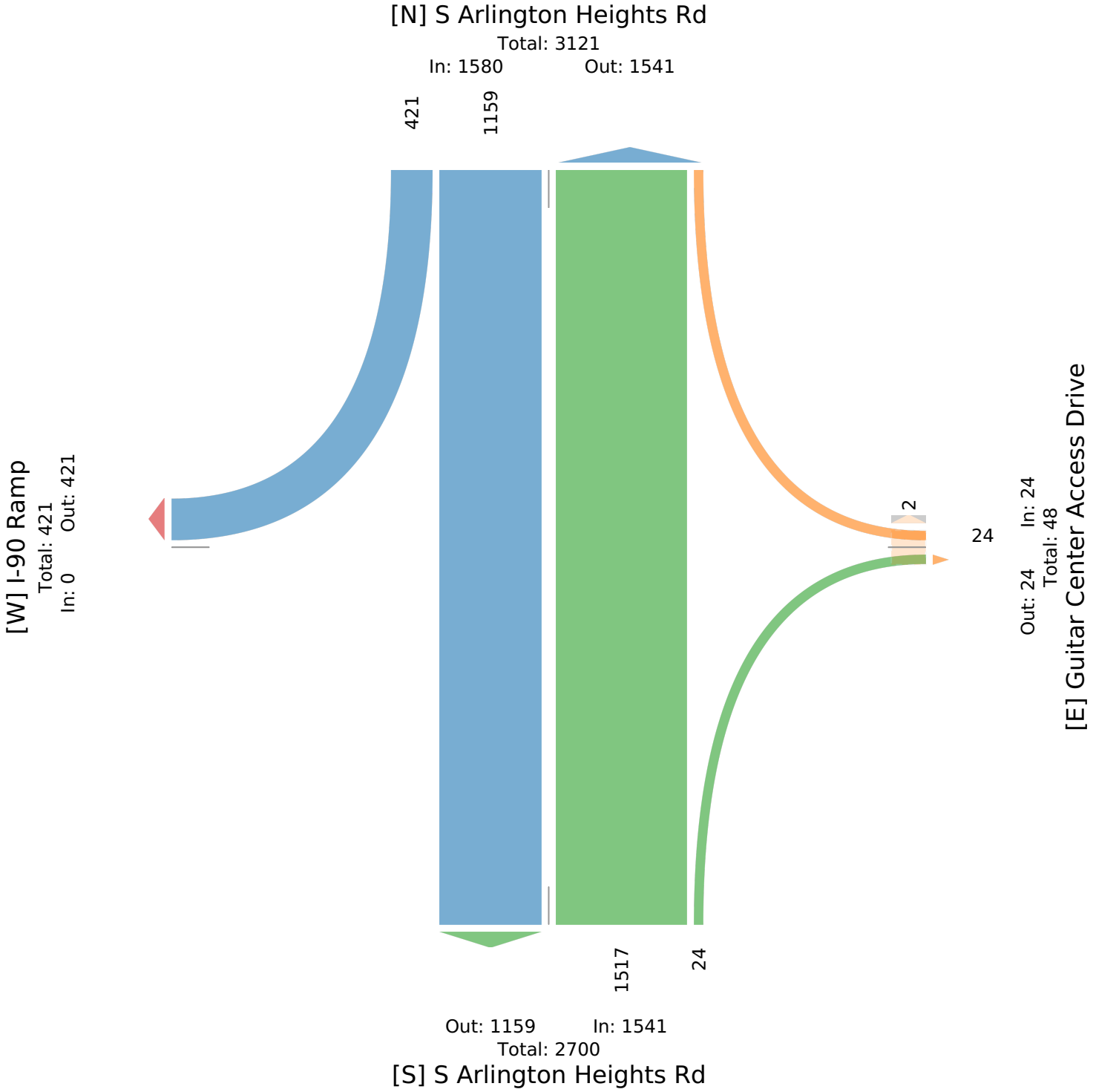
Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	I-90 Ramp		Guitar Center Access Drive					S Arlington Heights Rd					S Arlington Heights Rd						
Direction	Eastbound		Westbound					Northbound					Southbound						
Time	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-06-18 11:30AM	**0**	0	7	0	0	**7**	2	7	343	0	**350**	0	109	306	0	0	**415**	0	**772**
11:45AM	**0**	0	6	0	0	**6**	0	5	375	0	**380**	0	105	299	0	0	**404**	0	**790**
12:00PM	**0**	0	3	0	0	**3**	0	8	382	0	**390**	0	110	300	0	0	**410**	0	**803**
12:15PM	**0**	0	8	0	0	**8**	0	4	417	0	**421**	0	97	254	0	0	**351**	0	**780**
Total	**0**	0	24	0	0	**24**	2	24	1517	0	**1541**	0	421	1159	0	0	**1580**	0	**3145**
% Approach	**-**	-	100%	0%	0%	**-**	-	1.6%	98.4%	0%	**-**	-	26.6%	73.4%	0%	0%	**-**	-	-
% Total	**0%**	-	0.8%	0%	0%	**0.8%**	-	0.8%	48.2%	0%	**49.0%**	-	13.4%	36.9%	0%	0%	**50.2%**	-	-
PHF	**-**	-	0.750	-	-	**0.750**	-	0.750	0.909	-	**0.915**	-	0.957	0.947	-	-	**0.952**	-	0.979
Lights	**0**	-	24	0	0	**24**	-	24	1491	0	**1515**	-	411	1148	0	0	**1559**	-	3098
% Lights	**-**	-	100%	0%	0%	**100%**	-	100%	98.3%	0%	**98.3%**	-	97.6%	99.1%	0%	0%	**98.7%**	-	98.5%
Single-Unit Trucks	**0**	-	0	0	0	**0**	-	0	15	0	**15**	-	5	8	0	0	**13**	-	28
% Single-Unit Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	1.0%	0%	**1.0%**	-	1.2%	0.7%	0%	0%	**0.8%**	-	0.9%
Articulated Trucks	**0**	-	0	0	0	**0**	-	0	9	0	**9**	-	5	1	0	0	**6**	-	15
% Articulated Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	0.6%	0%	**0.6%**	-	1.2%	0.1%	0%	0%	**0.4%**	-	0.5%
Buses	**0**	-	0	0	0	**0**	-	0	2	0	**2**	-	0	2	0	0	**2**	-	4
% Buses	**-**	-	0%	0%	0%	**0%**	-	0%	0.1%	0%	**0.1%**	-	0%	0.2%	0%	0%	**0.1%**	-	0.1%
Bicycles on Road	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	**-**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	0	-	-	-	-	2	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Arlington Heights Rd with Guitar Center Acce... - TMC
Sat Jun 18, 2022
Midday Peak (WKND) (Jun 18 2022 11:30AM - 12:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Arlington Heights Rd with Guitar Center Acce... - TMC

Sat Jun 18, 2022
PM Peak (WKND) (Jun 18 2022 1PM - 2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg	I-90 Ramp		Guitar Center Access Drive					S Arlington Heights Rd					S Arlington Heights Rd					
Direction	Eastbound		Westbound					Northbound					Southbound					
Time	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-06-18 1:00PM	**0**	0	4	0	0	**4**	0	3	369	0	**372**	0	83	314	0	0	**397**	0	**773**
1:15PM	**0**	0	2	0	0	**2**	0	3	412	0	**415**	0	90	266	0	0	**356**	0	**773**
1:30PM	**0**	0	3	0	0	**3**	0	6	349	0	**355**	0	124	260	0	0	**384**	0	**742**
1:45PM	**0**	0	3	0	0	**3**	0	5	345	0	**350**	0	107	316	0	0	**423**	0	**776**
Total	**0**	0	12	0	0	**12**	0	17	1475	0	**1492**	0	404	1156	0	0	**1560**	0	**3064**
% Approach	**-**	-	100%	0%	0%	**-**	-	1.1%	98.9%	0%	**-**	-	25.9%	74.1%	0%	0%	**-**	-	**-**
% Total	**0%**	-	0.4%	0%	0%	**0.4%**	-	0.6%	48.1%	0%	**48.7%**	-	13.2%	37.7%	0%	0%	**50.9%**	-	**-**
PHF	**-**	-	0.750	-	-	**0.750**	-	0.800	0.895	-	**0.898**	-	0.815	0.915	-	-	**0.922**	-	0.987
Lights	**0**	-	12	0	0	**12**	-	16	1452	0	**1468**	-	395	1143	0	0	**1538**	-	3018
% Lights	**-**	-	100%	0%	0%	**100%**	-	94.1%	98.4%	0%	**98.4%**	-	97.8%	98.9%	0%	0%	**98.6%**	-	98.5%
Single-Unit Trucks	**0**	-	0	0	0	**0**	-	0	22	0	**22**	-	9	10	0	0	**19**	-	41
% Single-Unit Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	1.5%	0%	**1.5%**	-	2.2%	0.9%	0%	0%	**1.2%**	-	1.3%
Articulated Trucks	**0**	-	0	0	0	**0**	-	0	1	0	**1**	-	0	1	0	0	**1**	-	2
% Articulated Trucks	**-**	-	0%	0%	0%	**0%**	-	0%	0.1%	0%	**0.1%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.1%
Buses	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0	2	0	0	**2**	-	2
% Buses	**-**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0.2%	0%	0%	**0.1%**	-	0.1%
Bicycles on Road	**0**	-	0	0	0	**0**	-	1	0	0	**1**	-	0	0	0	0	**0**	-	1
% Bicycles on Road	**-**	-	0%	0%	0%	**0%**	-	5.9%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Arlington Heights Rd with Guitar Center Acce... - TMC
Sat Jun 18, 2022
PM Peak (WKND) (Jun 18 2022 1PM - 2 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 966112, Location: 42.042814, -87.983165

Provided by: Kenig Lindgren O'Hara Aboona, Inc.
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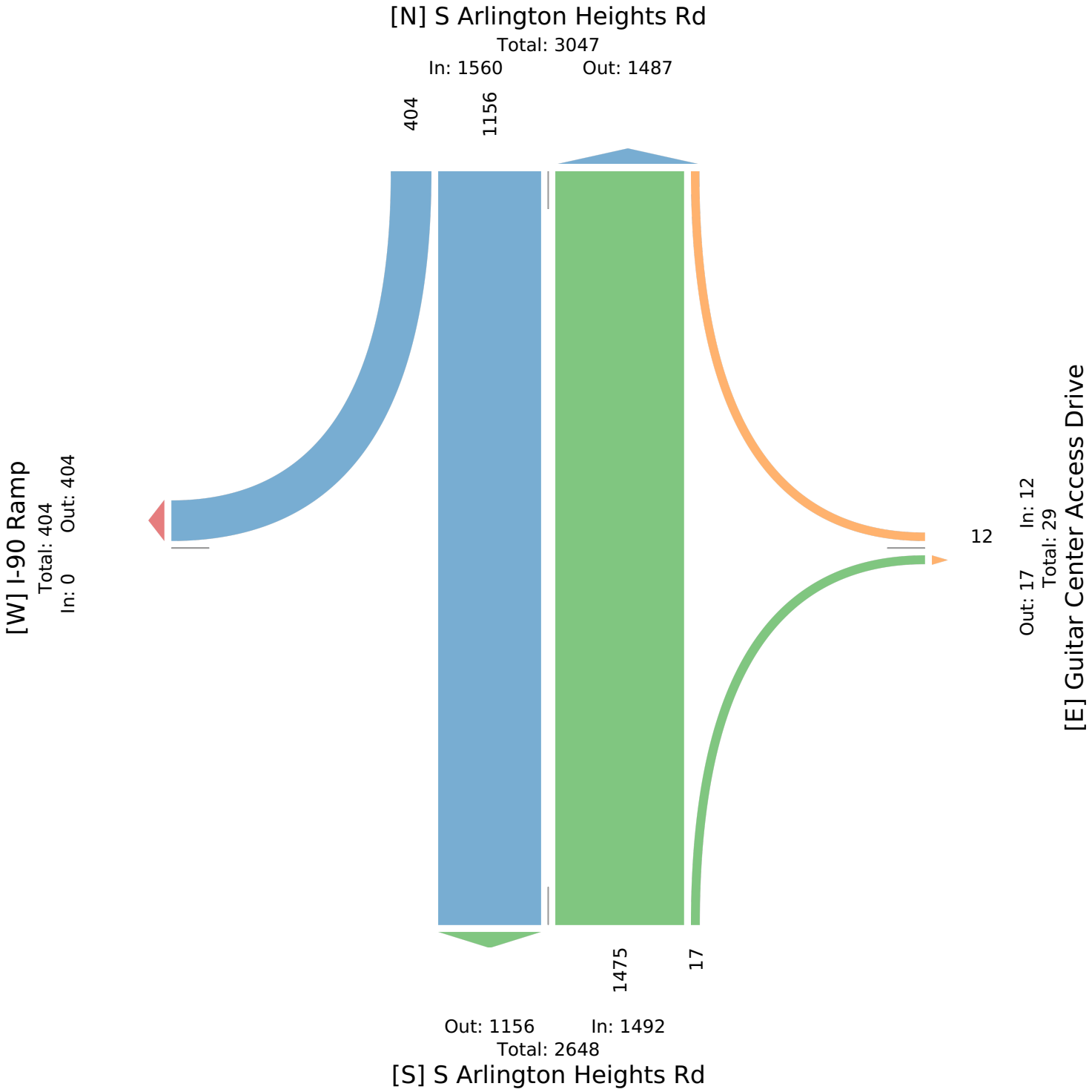
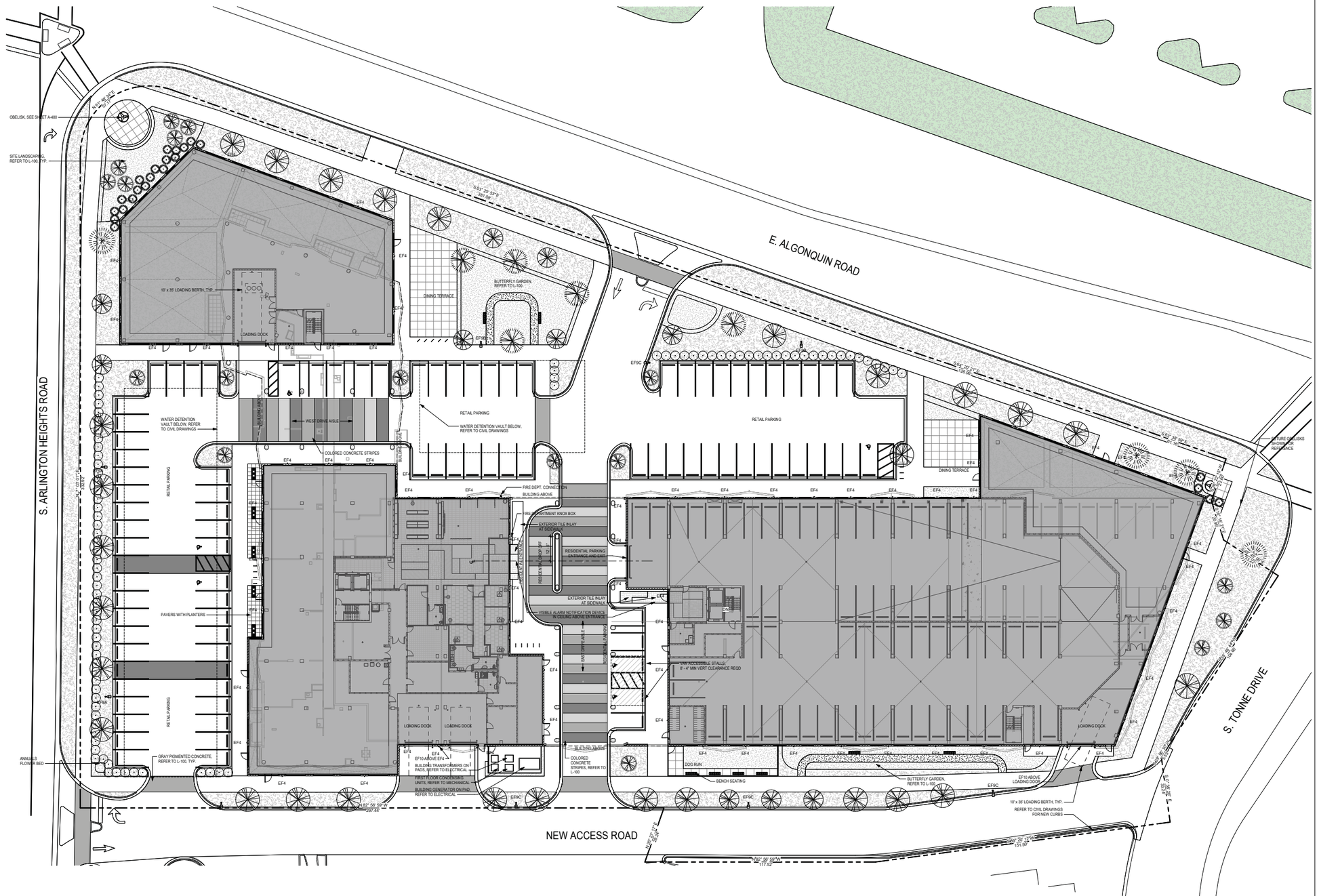


Site Plan



1 SITE PLAN
1/16" = 1'-0"

CITY STAMP:

SIGNATURE/SEAL

ILLINOIS
THOMAS A. ROSZAK
REGISTERED ARCHITECT
#001 019175
EXPIRATION DATE:
NOVEMBER 30, 2024

I CERTIFY THAT THESE DRAWINGS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE COMPLY WITH THE VILLAGE OF ARLINGTON HEIGHTS BUILDING CODE

No.	Date	Description
12	10/25/2023	95% CD's
11	10/20/2023	VILLAGE COMMENTS
4	9/15/2023	90% CD's
3	8/10/2023	ADDENDUM #1
2	7/25/2023	80% CD's
1	6/30/2023	50% CD's

ARLINGTON HEIGHTS PHASE I

2355 S. Arlington Heights Rd.,
Arlington Heights, IL 60005

OWNER
Bradford Allen
303 S. Wacker Dr. 35th Floor
Chicago, IL 60606
Tel: 312-994-5700

DEVELOPER
Moceri + Roszak
145 S. Wells St. Suite 700
Chicago, IL 60606
Tel: 312-423-7989

ARCHITECT
Thomas Roszak Architecture, LLC
145 S. Wells St. Suite 700
Chicago, IL 60606
Tel: 312-423-7989

CONSTRUCTION MANAGER
SteelGrass, LLC
145 S. Wells St. Suite 700
Chicago, IL 60606
Tel: 312-423-7989

DEVELOPMENT CONSULTANT
TR Management + Consulting
145 S. Wells St. Suite 700
Chicago, IL 60606
Tel: 312-423-7989

LANDSCAPE ARCHITECT
Thomas Roszak Architecture, LLC
145 S. Wells St. Suite 700
Chicago, IL 60606
Tel: 312-423-7989

CIVIL ENGINEER
V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
Tel: 630-724-9200

STRUCTURAL ENGINEER
Thornton Tomasetti
330 N. Wabash Avenue, Suite 1500
Chicago, IL 60611
Tel: 312-896-2300

MEP/FP DESIGN CONSULTANT
Cosentini Associates
1 S. Wacker Drive, Suite 3700
Chicago, IL 60606
Tel: 312-201-7401

GEOTECHNICAL ENGINEER
GEI
8615 W. Bryn Mawr Avenue, Suite 406
Chicago, IL 60631
Tel: 312-965-0364

GENERAL CONTRACTOR
Clark Construction Group
216 S. Jefferson Street, Suite 502
Chicago, IL 60661
Tel: 312-474-5300

MECHANICAL DESIGN/BUILD CONTRACTOR

PLUMBING DESIGN/BUILD CONTRACTOR

ELECTRICAL DESIGN/BUILD CONTRACTOR

FIRE PROTECTION DESIGN/BUILD CONTRACTOR

KEY PLAN

SHEET TITLE
SITE PLAN

SCALE
As indicated

DATE
10/16/2023

SHEET NUMBER
A-100

PROJECT NORTH

TRUE NORTH

Arlington Heights Gateway	Sheet Title: **SITE PLAN - TRAFFIC STUDY - ALL PHASES**	Date: 10/17/2023	BA BRADFORD ALLEN	Thomas Roszak Architecture, LLC
SEC of Algonquin Rd & Arlington Heights Rd, Arlington Heights, IL 60005				145 S. Wells Street, 700, Chicago, IL 60606

CMAP Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

July 19, 2022

Shahrzad Ainkeshavarzi
Consultant
Kenig, Lindgren, O'Hara, Aboona, Inc.
9575 West Higgins Road, Suite 400
Rosemont, IL, 60018

Subject: Arlington Heights Road @ Algonquin Road
IDOT

Dear Mr. Ainkeshavarzi:

In response to a request made on your behalf and dated July 18, 2022, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
South Arlington Heights Rd South of Algonquin Rd	38,800	45,100
South Arlington Heights Road North of Algonquin Rd	26,700	31,500
West Algonquin Rd West of South Arlington Heights Rd	24,000	27,200
East Algonquin Rd East of South Arlington Heights Rd	17,100	21,800
I-90 Westbound to Arlington Heights Northbound Exit	9,200	11,000

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2021 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (IDOT)
S:\AdminGroups\ResearchAnalysis\2022_ForecastTraffic\ArlingtonHeights\ck-96-22\ck-96-22.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

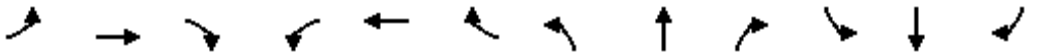
Signalized Intersections		
Level of Service	**Interpretation**	**Average Control Delay (seconds per vehicle)**
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	> 10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	> 35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	> 55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 80

Unsignalized Intersections	
Level of Service	**Average Total Delay (sec/veh)**
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Source: *Highway Capacity Manual*, 6th Edition.

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Existing Conditions

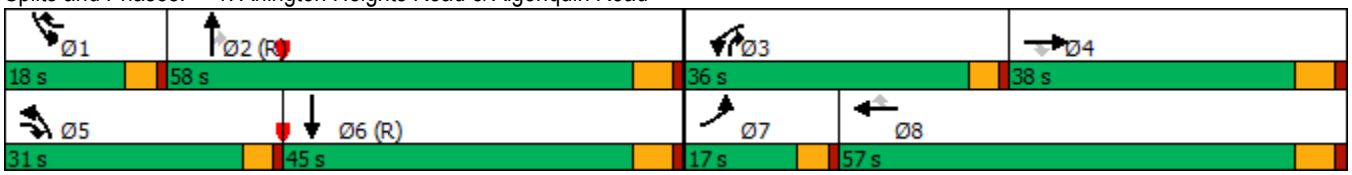


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	584	323	330	534	156	390	987	360	123	969	89
Future Volume (vph)	44	584	323	330	534	156	390	987	360	123	969	89
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	130		400	360		210	350		380	265		0
Storage Lanes	2		1	2		1	2		1	2		0
Taper Length (ft)	230			250			300			280		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.86	0.86
Frt			0.850			0.850			0.850		0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	5200	1553	3303	5056	1442	3335	5301	1495	3183	6330	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	5200	1553	3303	5056	1442	3335	5301	1495	3183	6330	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		864			394			463			944	
Travel Time (s)		13.1			6.0			9.0			18.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	5%	4%	6%	8%	12%	5%	3%	8%	10%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	596	330	337	545	159	398	1007	367	126	1080	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	
Total Split (s)	17.0	38.0	31.0	36.0	57.0	18.0	31.0	58.0	36.0	18.0	45.0	
Total Split (%)	11.3%	25.3%	20.7%	24.0%	38.0%	12.0%	20.7%	38.7%	24.0%	12.0%	30.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	7.4	32.0	61.0	21.3	47.9	64.9	23.0	64.6	91.9	11.1	52.7	
Actuated g/C Ratio	0.05	0.21	0.41	0.14	0.32	0.43	0.15	0.43	0.61	0.07	0.35	
v/c Ratio	0.27	0.54	0.52	0.72	0.34	0.25	0.78	0.44	0.40	0.54	0.49	
Control Delay	72.2	53.9	35.8	64.9	33.4	24.2	78.0	22.9	12.9	75.3	40.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	72.2	53.9	35.8	64.9	33.4	24.2	78.0	22.9	12.9	75.3	40.8	
LOS	E	D	D	E	C	C	E	C	B	E	D	
Approach Delay		48.6			42.2			33.2			44.4	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	22	190	236	168	163	118	202	206	155	62	245	
Queue Length 95th (ft)	44	227	309	157	104	70	m240	233	m183	96	317	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		784			314			383			864	
Turn Bay Length (ft)	130		400	360		210	350		380	265		
Base Capacity (vph)	280	1173	668	693	1744	647	589	2284	1018	286	2224	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.16	0.51	0.49	0.49	0.31	0.25	0.68	0.44	0.36	0.44	0.49	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 58 (39%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 40.8		Intersection LOS: D	
Intersection Capacity Utilization 66.1%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Arlington Heights Road & Algonquin Road

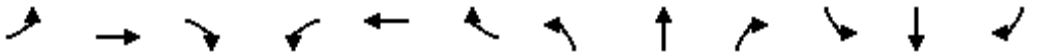


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	96	951	20	7	868	15	3	1	4	16	1	165
Future Volume (vph)	96	951	20	7	868	15	3	1	4	16	1	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.997			0.880			0.851	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	4840	0	1805	4746	0	1805	1393	0	1703	1601	0
Flt Permitted	0.263			0.259			0.411			0.754		
Satd. Flow (perm)	485	4840	0	492	4746	0	781	1393	0	1352	1601	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	7%	0%	0%	9%	7%	0%	0%	25%	6%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	1056	0	8	959	0	3	5	0	17	180	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	102.0		13.0	91.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.0%	68.0%		8.7%	60.7%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	117.9	113.5		112.4	104.2		22.6	22.6		22.6	22.6	
Actuated g/C Ratio	0.79	0.76		0.75	0.69		0.15	0.15		0.15	0.15	
v/c Ratio	0.23	0.29		0.02	0.29		0.03	0.02		0.08	0.75	
Control Delay	5.5	5.4		4.1	11.0		51.3	51.0		52.9	79.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.5	5.4		4.1	11.0		51.3	51.0		52.9	79.1	
LOS	A	A		A	B		D	D		D	E	
Approach Delay		5.4			10.9			51.1			76.8	
Approach LOS		A			B			D			E	
Queue Length 50th (ft)	16	75		1	141		3	4		14	170	
Queue Length 95th (ft)	37	128		m4	208		12	17		37	247	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	554	3660		464	3298		150	269		261	309	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.19	0.29		0.02	0.29		0.02	0.02		0.07	0.58	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 115 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 46.0%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Tonne Road & Algonquin Road

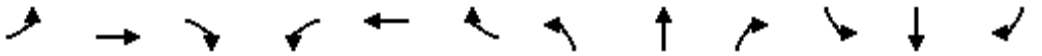


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	853	5	1	797	25	3	0	0	53	2	50
Future Volume (vph)	26	853	5	1	797	25	3	0	0	53	2	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	165		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	130			100			25			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.995						0.855	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1671	3372	0	1805	3271	0	0	1805	0	1736	1536	0
Flt Permitted	0.304			0.313				0.721		0.756		
Satd. Flow (perm)	535	3372	0	595	3271	0	0	1370	0	1381	1536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1142			483			222			765	
Travel Time (s)		17.3			7.3			6.1			20.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	8%	7%	0%	0%	10%	4%	0%	0%	0%	4%	0%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	912	0	1	875	0	0	3	0	56	55	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		18.0	18.0		18.0	18.0	
Total Split (s)	14.0	132.0		118.0	118.0		18.0	18.0		18.0	18.0	
Total Split (%)	9.3%	88.0%		78.7%	78.7%		12.0%	12.0%		12.0%	12.0%	
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		6.0	6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)	130.8	129.5		123.7	123.7			12.5		12.5	12.5	
Actuated g/C Ratio	0.87	0.86		0.82	0.82			0.08		0.08	0.08	
v/c Ratio	0.05	0.31		0.00	0.32			0.03		0.49	0.43	
Control Delay	3.0	4.9		5.0	4.9			61.0		79.0	74.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	3.0	4.9		5.0	4.9			61.0		79.0	74.7	
LOS	A	A		A	A			E		E	E	
Approach Delay		4.8			4.9			61.0			76.9	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	1	30		0	121			3		53	52	
Queue Length 95th (ft)	26	303		2	175			13		99	98	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1062			403			142			685	
Turn Bay Length (ft)	110			165						100		
Base Capacity (vph)	546	2947		492	2703			124		125	139	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.05	0.31		0.00	0.32			0.02		0.45	0.40	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 94 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 40.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Goebbert Road & Algonquin Road

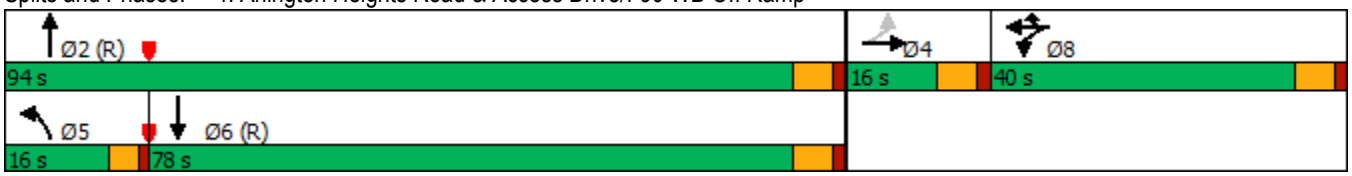


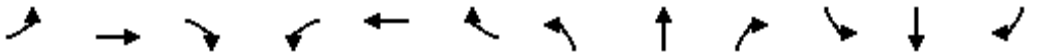
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	4	262	0	509	3	1226	0	0	1251	3
Future Volume (vph)	0	0	4	262	0	509	3	1226	0	0	1251	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	0		0	320		300	155		0	0		0
Storage Lanes	0		0	1		2	1		0	0		0
Taper Length (ft)	25			180			150			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.88	1.00	0.91	1.00	1.00	0.86	0.86
Frt		0.865				0.850						
Flt Protected				0.950	0.950		0.950					
Satd. Flow (prot)	0	1096	0	1698	1698	2760	1805	5151	0	0	6399	0
Flt Permitted				0.950	0.950		0.950					
Satd. Flow (perm)	0	1096	0	1698	1698	2760	1805	5151	0	0	6399	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		158			665			594			309	
Travel Time (s)		3.6			15.1			11.6			7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	0%	3%	0%	6%	0%	0%	2%	67%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	4	0	142	143	553	3	1333	0	0	1363	0
Turn Type		NA		Split	NA	Prot	Prot	NA			NA	
Protected Phases		4		8	8	8	5	2			6	
Permitted Phases	4											
Detector Phase	4	4		8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	3.0	15.0			15.0	
Minimum Split (s)	16.0	16.0		24.0	24.0	24.0	9.5	24.0			24.0	
Total Split (s)	16.0	16.0		40.0	40.0	40.0	16.0	94.0			78.0	
Total Split (%)	10.7%	10.7%		26.7%	26.7%	26.7%	10.7%	62.7%			52.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	3.5	4.5			4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.0	1.5			1.5	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	4.5	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None	None		None	None	None	None	C-Min			C-Min	
Act Effct Green (s)		8.1		36.1	36.1	36.1	5.9	99.0			96.8	
Actuated g/C Ratio		0.05		0.24	0.24	0.24	0.04	0.66			0.65	
v/c Ratio		0.07		0.35	0.35	0.83	0.04	0.39			0.33	
Control Delay		69.8		49.5	49.5	65.7	70.3	12.8			7.7	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay		69.8		49.5	49.5	65.7	70.3	12.8			7.7	
LOS		E		D	D	E	E	B			A	
Approach Delay		69.8			60.2			12.9			7.7	
Approach LOS		E			E			B			A	
Queue Length 50th (ft)		4		120	121	288	3	202			80	
Queue Length 95th (ft)		17		194	195	#396	15	291			122	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		78			585			514			229	
Turn Bay Length (ft)				320		300	155					
Base Capacity (vph)		73		417	417	678	138	3398			4127	
Starvation Cap Reductn		0		0	0	0	0	0			0	
Spillback Cap Reductn		0		0	0	0	0	0			0	
Storage Cap Reductn		0		0	0	0	0	0			0	
Reduced v/c Ratio		0.05		0.34	0.34	0.82	0.02	0.39			0.33	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 61 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 22.2		Intersection LOS: C	
Intersection Capacity Utilization 62.0%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Arlington Heights Road & Access Drive/I-90 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	2	0	1735	12	0	1254	368
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	2	0	1747	0	0	1254	368
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	0	0	0	0	1615	0	5170	0	0	7264	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	40.5	0.0	0.0	20.7	27.3
Adj Reference Time (s)	0.0	0.0	0.0	0.0	0.0	8.0	0.0	44.5	0.0	0.0	24.7	31.3
Permitted Option												
Adj Saturation A (vph)	0	0		0	0		0	1723		0	1816	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	40.5		0.0	20.7	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		0.0			0.0			40.5			20.7	
Adj Reference Time (s)		8.0			8.0			44.5			24.7	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	40.5		0.0	20.7	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	40.3		0.0	20.7	
Reference Time (s)	0.0	0.0		0.0	0.0		40.5	40.5		20.7	20.7	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		44.5	44.5		24.7	24.7	

Summary	EB WB	NB SB	Combined
Protected Option (s)	0.0	44.5	
Permitted Option (s)	8.0	44.5	
Split Option (s)	0.0	69.3	
Minimum (s)	0.0	44.5	44.5

Right Turns	WBR	SBR
Adj Reference Time (s)	8.0	31.3
Cross Thru Ref Time (s)	44.5	0.0
Oncoming Left Ref Time (s)	0.0	0.0
Combined (s)	52.5	31.3

Intersection Summary			
Intersection Capacity Utilization	43.8%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Capacity Analysis Summary Sheets

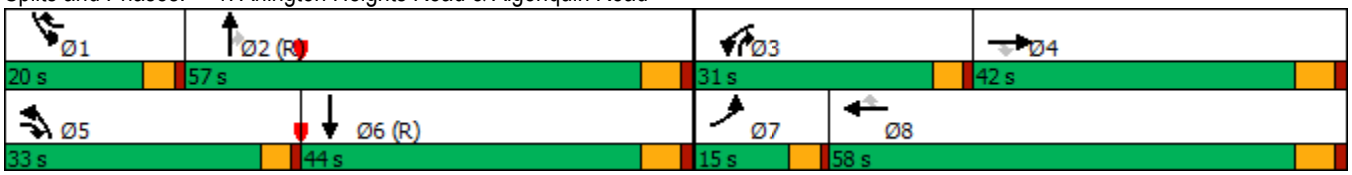
Weekday Evening Peak Hour – Existing Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	736	449	438	808	215	487	1251	453	193	1201	95
Future Volume (vph)	87	736	449	438	808	215	487	1251	453	193	1201	95
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	130		400	360		210	350		380	265		0
Storage Lanes	2		1	2		1	2		1	2		0
Taper Length (ft)	230			250			300			280		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.86	0.86
Frt			0.850			0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3502	5151	1615	3433	5353	1599	3467	5406	1568	3367	6400	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3502	5151	1615	3433	5353	1599	3467	5406	1568	3367	6400	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		864			394			463			944	
Travel Time (s)		13.1			6.0			9.0			18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	6%	0%	2%	2%	1%	1%	1%	3%	4%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	775	473	461	851	226	513	1317	477	203	1364	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	
Total Split (s)	15.0	42.0	33.0	31.0	58.0	20.0	33.0	57.0	31.0	20.0	44.0	
Total Split (%)	10.0%	28.0%	22.0%	20.7%	38.7%	13.3%	22.0%	38.0%	20.7%	13.3%	29.3%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	9.1	36.0	68.7	24.6	51.5	71.2	26.7	54.8	85.3	13.7	41.8	
Actuated g/C Ratio	0.06	0.24	0.46	0.16	0.34	0.47	0.18	0.37	0.57	0.09	0.28	
v/c Ratio	0.44	0.63	0.64	0.82	0.46	0.30	0.83	0.67	0.54	0.66	0.77	
Control Delay	74.2	53.6	35.6	88.1	33.3	20.4	57.7	38.6	27.5	76.5	53.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	74.2	53.6	35.6	88.1	33.3	20.4	57.7	38.6	27.5	76.5	53.8	
LOS	E	D	D	F	C	C	E	D	C	E	D	
Approach Delay		48.7			47.8			40.6			56.8	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	45	250	342	221	157	85	239	433	354	100	370	
Queue Length 95th (ft)	75	299	466	305	180	114	286	492	514	143	417	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		784			314			383			864	
Turn Bay Length (ft)	130		400	360		210	350		380	265		
Base Capacity (vph)	245	1254	759	606	1880	777	658	1974	912	347	1782	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.38	0.62	0.62	0.76	0.45	0.29	0.78	0.67	0.52	0.59	0.77	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 77 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 47.6		Intersection LOS: D	
Intersection Capacity Utilization 76.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Arlington Heights Road & Algonquin Road

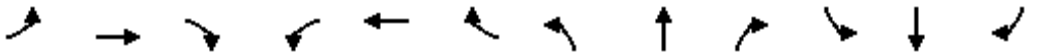


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	176	1199	7	6	1244	24	29	6	5	30	0	66
Future Volume (vph)	176	1199	7	6	1244	24	29	6	5	30	0	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.997			0.932			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	4936	0	1805	5072	0	1805	1623	0	1752	1599	0
Flt Permitted	0.173			0.204			0.711			0.750		
Satd. Flow (perm)	329	4936	0	388	5072	0	1351	1623	0	1383	1599	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	0%	0%	2%	0%	0%	0%	20%	3%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	187	1283	0	6	1349	0	31	11	0	32	70	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	14.0	108.0		14.0	108.0		28.0	28.0		28.0	28.0	
Total Split (%)	9.3%	72.0%		9.3%	72.0%		18.7%	18.7%		18.7%	18.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	130.4	127.3		124.5	116.4		12.9	12.9		12.9	12.9	
Actuated g/C Ratio	0.87	0.85		0.83	0.78		0.09	0.09		0.09	0.09	
v/c Ratio	0.51	0.31		0.02	0.34		0.27	0.08		0.27	0.51	
Control Delay	15.4	2.9		1.5	3.0		68.3	62.0		68.3	77.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.4	2.9		1.5	3.0		68.3	62.0		68.3	77.8	
LOS	B	A		A	A		E	E		E	E	
Approach Delay		4.5			3.0			66.7			74.8	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	38	66		0	51		29	10		30	67	
Queue Length 95th (ft)	77	117		m1	58		63	31		65	117	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	389	4188		433	3937		198	238		202	234	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.48	0.31		0.01	0.34		0.16	0.05		0.16	0.30	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 140 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 7.1		Intersection LOS: A	
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Tonne Road & Algonquin Road

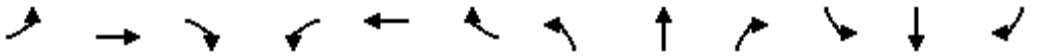


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	1068	5	2	1178	80	6	1	1	55	3	44
Future Volume (vph)	57	1068	5	2	1178	80	6	1	1	55	3	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	165		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	130			100			25			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.990			0.983			0.859	
Flt Protected	0.950			0.950				0.964		0.950		
Satd. Flow (prot)	1805	3435	0	1805	3506	0	0	1600	0	1805	1632	0
Flt Permitted	0.181			0.255				0.784		0.752		
Satd. Flow (perm)	344	3435	0	484	3506	0	0	1302	0	1429	1632	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1142			483			222			765	
Travel Time (s)		17.3			7.3			6.1			20.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	5%	0%	0%	2%	1%	0%	100%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	1118	0	2	1310	0	0	8	0	57	49	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		18.0	18.0		18.0	18.0	
Total Split (s)	14.0	125.0		111.0	111.0		25.0	25.0		25.0	25.0	
Total Split (%)	9.3%	83.3%		74.0%	74.0%		16.7%	16.7%		16.7%	16.7%	
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		6.0	6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)	130.9	129.6		121.7	121.7			12.4		12.4	12.4	
Actuated g/C Ratio	0.87	0.86		0.81	0.81			0.08		0.08	0.08	
v/c Ratio	0.16	0.38		0.01	0.46			0.07		0.48	0.37	
Control Delay	2.9	3.2		5.0	6.5			62.8		78.5	71.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	2.9	3.2		5.0	6.5			62.8		78.5	71.5	
LOS	A	A		A	A			E		E	E	
Approach Delay		3.2			6.5			62.8			75.3	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	8	85		0	214			7		54	46	
Queue Length 95th (ft)	15	117		3	301			25		101	89	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1062			403			142			685	
Turn Bay Length (ft)	110			165						100		
Base Capacity (vph)	402	2968		392	2844			164		181	206	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.15	0.38		0.01	0.46			0.05		0.31	0.24	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 120 (80%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 8.0		Intersection LOS: A	
Intersection Capacity Utilization 63.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Goebbert Road & Algonquin Road

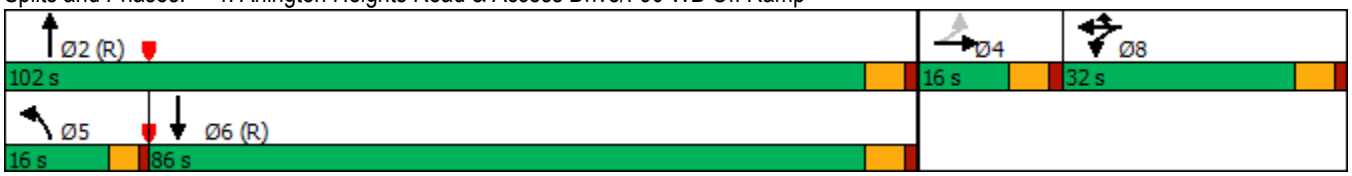


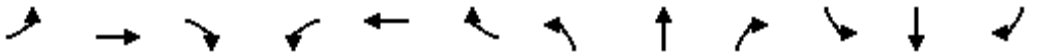
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	0	197	1	508	0	1688	0	0	1589	1
Future Volume (vph)	2	0	0	197	1	508	0	1688	0	0	1589	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	0		0	320		300	155		0	0		0
Storage Lanes	0		0	1		2	1		0	0		0
Taper Length (ft)	25			180			150			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.88	1.00	0.91	1.00	1.00	0.86	0.86
Frt						0.850						
Flt Protected		0.950		0.950	0.953							
Satd. Flow (prot)	0	1805	0	1681	1687	2814	1900	5406	0	0	6471	0
Flt Permitted				0.950	0.953							
Satd. Flow (perm)	0	1900	0	1681	1687	2814	1900	5406	0	0	6471	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		158			665			594			309	
Travel Time (s)		3.6			15.1			11.6			7.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	2%	0%	1%	0%	1%	0%	0%	1%	0%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	2	0	101	103	524	0	1740	0	0	1639	0
Turn Type	Perm	NA		Split	NA	Prot	Prot	NA			NA	
Protected Phases		4		8	8	8	5	2			6	
Permitted Phases	4											
Detector Phase	4	4		8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	3.0	15.0			15.0	
Minimum Split (s)	16.0	16.0		24.0	24.0	24.0	9.5	24.0			24.0	
Total Split (s)	16.0	16.0		32.0	32.0	32.0	16.0	102.0			86.0	
Total Split (%)	10.7%	10.7%		21.3%	21.3%	21.3%	10.7%	68.0%			57.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	3.5	4.5			4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.0	1.5			1.5	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	4.5	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None	None		None	None	None	None	C-Min			C-Min	
Act Effct Green (s)		8.1		37.7	37.7	37.7		97.4			97.4	
Actuated g/C Ratio		0.05		0.25	0.25	0.25		0.65			0.65	
v/c Ratio		0.02		0.24	0.24	0.74		0.50			0.39	
Control Delay		67.5		48.2	48.3	58.8		14.2			12.6	
Queue Delay		0.0		0.0	0.0	0.0		0.0			0.0	
Total Delay		67.5		48.2	48.3	58.8		14.2			12.6	
LOS		E		D	D	E		B			B	
Approach Delay		67.5			55.9			14.2			12.6	
Approach LOS		E			E			B			B	
Queue Length 50th (ft)		2		82	83	264		298			168	
Queue Length 95th (ft)		11		154	157	#438		349			227	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		78			585			514			229	
Turn Bay Length (ft)				320		300						
Base Capacity (vph)		126		422	424	707		3508			4200	
Starvation Cap Reductn		0		0	0	0		0			0	
Spillback Cap Reductn		0		0	0	0		0			0	
Storage Cap Reductn		0		0	0	0		0			0	
Reduced v/c Ratio		0.02		0.24	0.24	0.74		0.50			0.39	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 41 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 21.0		Intersection LOS: C	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Arlington Heights Road & Access Drive/I-90 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	9	0	2182	14	0	1590	498
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	9	0	2196	0	0	1590	498
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	0	0	0	0	1615	0	5171	0	0	7264	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	0.7	0.0	51.0	0.0	0.0	26.3	37.0
Adj Reference Time (s)	0.0	0.0	0.0	0.0	0.0	8.0	0.0	55.0	0.0	0.0	30.3	41.0
Permitted Option												
Adj Saturation A (vph)	0	0		0	0		0	1724		0	1816	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	51.0		0.0	26.3	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		0.0			0.0			51.0			26.3	
Adj Reference Time (s)		8.0			8.0			55.0			30.3	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	51.0		0.0	26.3	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	50.6		0.0	26.3	
Reference Time (s)	0.0	0.0		0.0	0.0		51.0	51.0		26.3	26.3	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		55.0	55.0		30.3	30.3	

Summary	EB WB	NB SB	Combined
Protected Option (s)	0.0	55.0	
Permitted Option (s)	8.0	55.0	
Split Option (s)	0.0	85.2	
Minimum (s)	0.0	55.0	55.0

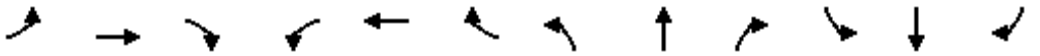
Right Turns	WBR	SBR
Adj Reference Time (s)	8.0	41.0
Cross Thru Ref Time (s)	55.0	0.0
Oncoming Left Ref Time (s)	0.0	0.0
Combined (s)	63.0	41.0

Intersection Summary			
Intersection Capacity Utilization	52.5%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – No-Build Conditions

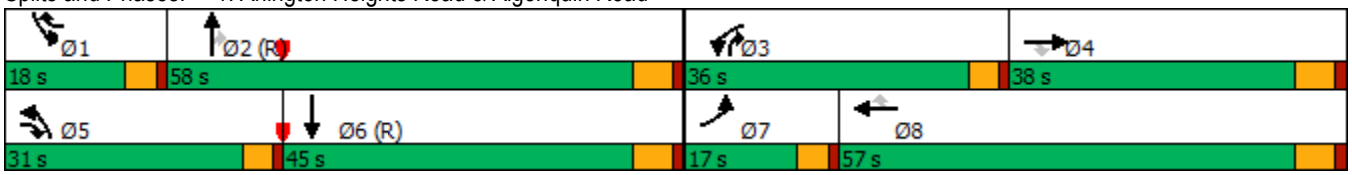


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	611	336	343	579	162	406	1034	374	128	1017	93
Future Volume (vph)	46	611	336	343	579	162	406	1034	374	128	1017	93
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	130		400	360		210	350		380	265		0
Storage Lanes	2		1	2		1	2		1	2		0
Taper Length (ft)	230			250			300			280		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.86	0.86
Frt			0.850			0.850			0.850		0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	5200	1553	3303	5056	1442	3335	5301	1495	3183	6330	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	5200	1553	3303	5056	1442	3335	5301	1495	3183	6330	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		864			394			463			944	
Travel Time (s)		13.1			6.0			9.0			18.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	5%	4%	6%	8%	12%	5%	3%	8%	10%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	623	343	350	591	165	414	1055	382	131	1133	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	
Total Split (s)	17.0	38.0	31.0	36.0	57.0	18.0	31.0	58.0	36.0	18.0	45.0	
Total Split (%)	11.3%	25.3%	20.7%	24.0%	38.0%	12.0%	20.7%	38.7%	24.0%	12.0%	30.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	7.5	33.0	62.5	21.9	49.3	66.6	23.5	62.9	90.8	11.2	50.7	
Actuated g/C Ratio	0.05	0.22	0.42	0.15	0.33	0.44	0.16	0.42	0.61	0.07	0.34	
v/c Ratio	0.28	0.55	0.53	0.73	0.36	0.26	0.79	0.47	0.42	0.55	0.53	
Control Delay	72.3	53.4	35.3	65.4	32.7	22.6	79.1	24.0	13.5	75.5	43.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	72.3	53.4	35.3	65.4	32.7	22.6	79.1	24.0	13.5	75.5	43.0	
LOS	E	D	D	E	C	C	E	C	B	E	D	
Approach Delay		48.1			41.6			34.2			46.4	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	23	197	241	174	175	116	215	215	160	64	268	
Queue Length 95th (ft)	45	239	328	174	131	89	m251	242	m188	100	334	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		784			314			383			864	
Turn Bay Length (ft)	130		400	360		210	350		380	265		
Base Capacity (vph)	280	1190	678	693	1758	661	591	2224	1001	286	2137	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.17	0.52	0.51	0.51	0.34	0.25	0.70	0.47	0.38	0.46	0.53	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 58 (39%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 41.4		Intersection LOS: D	
Intersection Capacity Utilization 67.7%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Arlington Heights Road & Algonquin Road

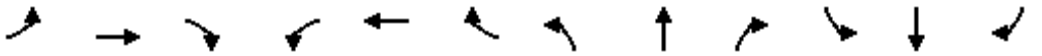


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	100	993	21	7	927	16	3	1	4	17	1	172
Future Volume (vph)	100	993	21	7	927	16	3	1	4	17	1	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.998			0.880			0.851	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	4840	0	1805	4751	0	1805	1393	0	1703	1601	0
Flt Permitted	0.243			0.247			0.397			0.754		
Satd. Flow (perm)	448	4840	0	469	4751	0	754	1393	0	1352	1601	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	7%	0%	0%	9%	7%	0%	0%	25%	6%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	1102	0	8	1025	0	3	5	0	18	188	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	102.0		13.0	91.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.0%	68.0%		8.7%	60.7%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	117.3	112.9		111.7	103.5		23.2	23.2		23.2	23.2	
Actuated g/C Ratio	0.78	0.75		0.74	0.69		0.15	0.15		0.15	0.15	
v/c Ratio	0.26	0.30		0.02	0.31		0.03	0.02		0.09	0.76	
Control Delay	6.1	5.4		4.6	9.8		51.0	50.6		52.6	79.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.1	5.4		4.6	9.8		51.0	50.6		52.6	79.8	
LOS	A	A		A	A		D	D		D	E	
Approach Delay		5.5			9.8			50.8			77.5	
Approach LOS		A			A			D			E	
Queue Length 50th (ft)	20	99		0	161		3	4		15	178	
Queue Length 95th (ft)	38	133		m4	116		12	17		39	257	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	528	3643		445	3279		145	269		261	309	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	0.30		0.02	0.31		0.02	0.02		0.07	0.61	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 115 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 47.8%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Tonne Road & Algonquin Road

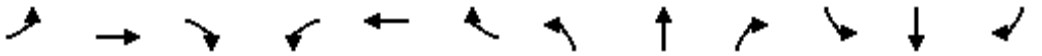


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	891	5	1	853	26	3	0	0	55	2	52
Future Volume (vph)	27	891	5	1	853	26	3	0	0	55	2	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	165		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	130			100			25			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.996						0.855	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1671	3372	0	1805	3274	0	0	1805	0	1736	1536	0
Flt Permitted	0.283			0.300				0.720		0.756		
Satd. Flow (perm)	498	3372	0	570	3274	0	0	1368	0	1381	1536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1142			483			222			765	
Travel Time (s)		17.3			7.3			6.1			20.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	8%	7%	0%	0%	10%	4%	0%	0%	0%	4%	0%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	953	0	1	935	0	0	3	0	59	57	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		18.0	18.0		18.0	18.0	
Total Split (s)	14.0	132.0		118.0	118.0		18.0	18.0		18.0	18.0	
Total Split (%)	9.3%	88.0%		78.7%	78.7%		12.0%	12.0%		12.0%	12.0%	
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		6.0	6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)	128.9	126.4		120.6	120.6			11.6		11.6	11.6	
Actuated g/C Ratio	0.86	0.84		0.80	0.80			0.08		0.08	0.08	
v/c Ratio	0.06	0.34		0.00	0.36			0.03		0.56	0.48	
Control Delay	1.6	3.9		4.0	4.9			63.7		85.9	79.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	1.6	3.9		4.0	4.9			63.7		85.9	79.5	
LOS	A	A		A	A			E		F	E	
Approach Delay		3.8			4.9			63.7			82.8	
Approach LOS		A			A			E			F	
Queue Length 50th (ft)	1	254		0	133			3		56	54	
Queue Length 95th (ft)	7	72		2	160			14		109	104	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1062			403			142			685	
Turn Bay Length (ft)	110			165						100		
Base Capacity (vph)	510	2856		458	2633			115		116	129	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.06	0.33		0.00	0.36			0.03		0.51	0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 94 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 41.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Goebbert Road & Algonquin Road

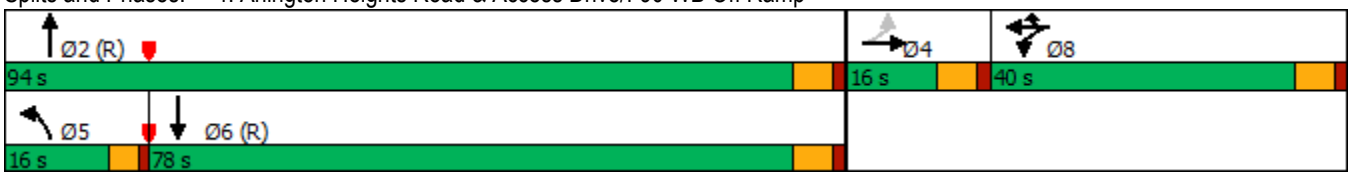


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	4	272	0	529	3	1283	0	0	1310	3
Future Volume (vph)	0	0	4	272	0	529	3	1283	0	0	1310	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	0		0	320		300	155		0	0		0
Storage Lanes	0		0	1		2	1		0	0		0
Taper Length (ft)	25			180			150			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.88	1.00	0.91	1.00	1.00	0.86	0.86
Frt		0.865				0.850						
Flt Protected				0.950	0.950		0.950					
Satd. Flow (prot)	0	1096	0	1698	1698	2760	1805	5151	0	0	6399	0
Flt Permitted				0.950	0.950		0.950					
Satd. Flow (perm)	0	1096	0	1698	1698	2760	1805	5151	0	0	6399	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		158			665			594			309	
Travel Time (s)		3.6			15.1			11.6			7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	0%	3%	0%	6%	0%	0%	2%	67%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	4	0	148	148	575	3	1395	0	0	1427	0
Turn Type		NA		Split	NA	Prot	Prot	NA			NA	
Protected Phases		4		8	8	8	5	2			6	
Permitted Phases	4											
Detector Phase	4	4		8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	3.0	15.0			15.0	
Minimum Split (s)	16.0	16.0		24.0	24.0	24.0	9.5	24.0			24.0	
Total Split (s)	16.0	16.0		40.0	40.0	40.0	16.0	94.0			78.0	
Total Split (%)	10.7%	10.7%		26.7%	26.7%	26.7%	10.7%	62.7%			52.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	3.5	4.5			4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.0	1.5			1.5	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	4.5	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None	None		None	None	None	None	C-Min			C-Min	
Act Effct Green (s)		8.1		37.7	37.7	37.7	5.9	97.3			95.1	
Actuated g/C Ratio		0.05		0.25	0.25	0.25	0.04	0.65			0.63	
v/c Ratio		0.07		0.35	0.35	0.83	0.04	0.42			0.35	
Control Delay		69.8		48.4	48.4	63.9	70.3	13.8			8.1	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay		69.8		48.4	48.4	63.9	70.3	13.8			8.1	
LOS		E		D	D	E	E	B			A	
Approach Delay		69.8			58.6			13.9			8.1	
Approach LOS		E			E			B			A	
Queue Length 50th (ft)		4		122	122	295	3	227			87	
Queue Length 95th (ft)		17		202	202	#422	15	308			128	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		78			585			514			229	
Turn Bay Length (ft)				320		300	155					
Base Capacity (vph)		73		431	431	702	138	3342			4057	
Starvation Cap Reductn		0		0	0	0	0	0			0	
Spillback Cap Reductn		0		0	0	0	0	0			0	
Storage Cap Reductn		0		0	0	0	0	0			0	
Reduced v/c Ratio		0.05		0.34	0.34	0.82	0.02	0.42			0.35	

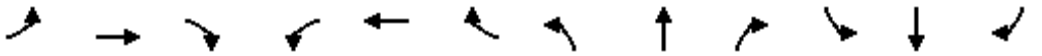
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 61 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 22.2		Intersection LOS: C	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Arlington Heights Road & Access Drive/I-90 WB Off Ramp



Intersection Capacity Utilization
5: Arlington Heights Road & I-90 WB On Ramp/Right-In/Right-Out Access Drive

10/17/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	2	0	1812	12	0	1313	383
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	2	0	1824	0	0	1313	383
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	0	0	0	0	1615	0	5170	0	0	7264	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	42.3	0.0	0.0	21.7	28.5
Adj Reference Time (s)	0.0	0.0	0.0	0.0	0.0	8.0	0.0	46.3	0.0	0.0	25.7	32.5
Permitted Option												
Adj Saturation A (vph)	0	0		0	0		0	1723		0	1816	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	42.3		0.0	21.7	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		0.0			0.0			42.3			21.7	
Adj Reference Time (s)		8.0			8.0			46.3			25.7	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	42.3		0.0	21.7	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	42.1		0.0	21.7	
Reference Time (s)	0.0	0.0		0.0	0.0		42.3	42.3		21.7	21.7	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		46.3	46.3		25.7	25.7	

Summary	EB WB	NB SB	Combined
Protected Option (s)	0.0	46.3	
Permitted Option (s)	8.0	46.3	
Split Option (s)	0.0	72.0	
Minimum (s)	0.0	46.3	46.3

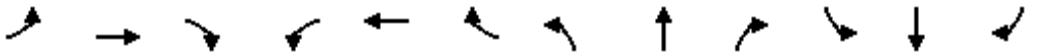
Right Turns	WBR	SBR
Adj Reference Time (s)	8.0	32.5
Cross Thru Ref Time (s)	46.3	0.0
Oncoming Left Ref Time (s)	0.0	0.0
Combined (s)	54.3	32.5

Intersection Summary			
Intersection Capacity Utilization	45.3%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – No-Build Conditions

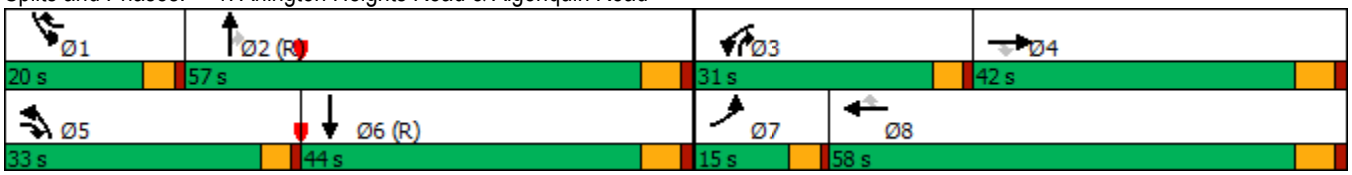


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	788	467	456	851	224	506	1312	471	201	1261	99
Future Volume (vph)	90	788	467	456	851	224	506	1312	471	201	1261	99
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	130		400	360		210	350		380	265		0
Storage Lanes	2		1	2		1	2		1	2		0
Taper Length (ft)	230			250			300			280		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.86	0.86
Frt			0.850			0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3502	5151	1615	3433	5353	1599	3467	5406	1568	3367	6400	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3502	5151	1615	3433	5353	1599	3467	5406	1568	3367	6400	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		864			394			463			944	
Travel Time (s)		13.1			6.0			9.0			18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	6%	0%	2%	2%	1%	1%	1%	3%	4%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	829	492	480	896	236	533	1381	496	212	1431	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	
Total Split (s)	15.0	42.0	33.0	31.0	58.0	20.0	33.0	57.0	31.0	20.0	44.0	
Total Split (%)	10.0%	28.0%	22.0%	20.7%	38.7%	13.3%	22.0%	38.0%	20.7%	13.3%	29.3%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	9.1	36.4	69.5	25.1	52.3	72.2	27.1	53.6	84.7	13.9	40.5	
Actuated g/C Ratio	0.06	0.24	0.46	0.17	0.35	0.48	0.18	0.36	0.56	0.09	0.27	
v/c Ratio	0.45	0.66	0.66	0.84	0.48	0.31	0.85	0.71	0.56	0.68	0.83	
Control Delay	74.4	54.3	36.0	95.1	30.4	19.1	57.8	39.7	27.8	77.2	56.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	
Total Delay	74.4	54.3	36.0	95.1	30.4	19.1	57.8	39.7	28.4	77.2	56.9	
LOS	E	D	D	F	C	B	E	D	C	E	E	
Approach Delay		49.3			48.0			41.3			59.5	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	46	271	361	257	173	96	233	460	375	104	394	
Queue Length 95th (ft)	78	321	492	317	197	m129	302	519	538	149	442	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		784			314			383			864	
Turn Bay Length (ft)	130		400	360		210	350		380	265		
Base Capacity (vph)	245	1250	763	606	1878	787	658	1932	900	347	1726	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	134	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.39	0.66	0.64	0.79	0.48	0.30	0.81	0.71	0.65	0.61	0.83	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 77 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 48.7		Intersection LOS: D	
Intersection Capacity Utilization 79.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Arlington Heights Road & Algonquin Road

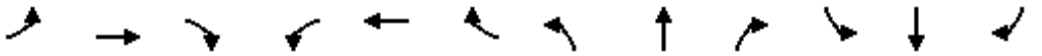


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	183	1270	7	6	1305	25	30	6	5	31	0	173
Future Volume (vph)	183	1270	7	6	1305	25	30	6	5	31	0	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.997			0.932			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	4936	0	1805	5072	0	1805	1623	0	1752	1599	0
Flt Permitted	0.152			0.188			0.370			0.750		
Satd. Flow (perm)	289	4936	0	357	5072	0	703	1623	0	1383	1599	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	0%	0%	2%	0%	0%	0%	20%	3%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	1358	0	6	1415	0	32	11	0	33	184	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	14.0	108.0		14.0	108.0		28.0	28.0		28.0	28.0	
Total Split (%)	9.3%	72.0%		9.3%	72.0%		18.7%	18.7%		18.7%	18.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	119.9	115.5		112.9	104.8		20.6	20.6		20.6	20.6	
Actuated g/C Ratio	0.80	0.77		0.75	0.70		0.14	0.14		0.14	0.14	
v/c Ratio	0.61	0.36		0.02	0.40		0.33	0.05		0.17	0.84	
Control Delay	24.9	4.1		2.0	5.8		67.9	55.8		58.8	92.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.9	4.1		2.0	5.8		67.9	55.8		58.8	92.8	
LOS	C	A		A	A		E	E		E	F	
Approach Delay		6.7			5.8			64.8			87.7	
Approach LOS		A			A			E			F	
Queue Length 50th (ft)	50	82		0	116		28	9		29	176	
Queue Length 95th (ft)	110	127		m1	61		66	29		63	#298	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	337	3800		381	3542		103	238		202	234	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.58	0.36		0.02	0.40		0.31	0.05		0.16	0.79	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 140 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 12.5		Intersection LOS: B	
Intersection Capacity Utilization 71.6%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Tonne Road & Algonquin Road

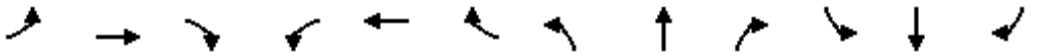


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1134	5	2	1236	83	6	1	1	57	3	46
Future Volume (vph)	59	1134	5	2	1236	83	6	1	1	57	3	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	165		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	130			100			25			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991			0.983			0.859	
Flt Protected	0.950			0.950				0.964		0.950		
Satd. Flow (prot)	1805	3435	0	1805	3510	0	0	1600	0	1805	1632	0
Flt Permitted	0.167			0.238				0.785		0.752		
Satd. Flow (perm)	317	3435	0	452	3510	0	0	1303	0	1429	1632	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1142			483			222			765	
Travel Time (s)		17.3			7.3			6.1			20.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	5%	0%	0%	2%	1%	0%	100%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	1186	0	2	1374	0	0	8	0	59	51	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		18.0	18.0		18.0	18.0	
Total Split (s)	14.0	125.0		111.0	111.0		25.0	25.0		25.0	25.0	
Total Split (%)	9.3%	83.3%		74.0%	74.0%		16.7%	16.7%		16.7%	16.7%	
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		6.0	6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)	130.7	129.4		121.5	121.5			12.6		12.6	12.6	
Actuated g/C Ratio	0.87	0.86		0.81	0.81			0.08		0.08	0.08	
v/c Ratio	0.18	0.40		0.01	0.48			0.07		0.50	0.38	
Control Delay	3.1	3.5		5.0	6.8			62.4		78.7	71.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	3.1	3.5		5.0	6.8			62.4		78.7	71.6	
LOS	A	A		A	A			E		E	E	
Approach Delay		3.4			6.8			62.4			75.4	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	8	88		0	232			7		56	48	
Queue Length 95th (ft)	16	124		3	329			25		104	92	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1062			403			142			685	
Turn Bay Length (ft)	110			165						100		
Base Capacity (vph)	380	2964		366	2842			165		181	206	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.16	0.40		0.01	0.48			0.05		0.33	0.25	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 120 (80%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 65.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Goebbert Road & Algonquin Road

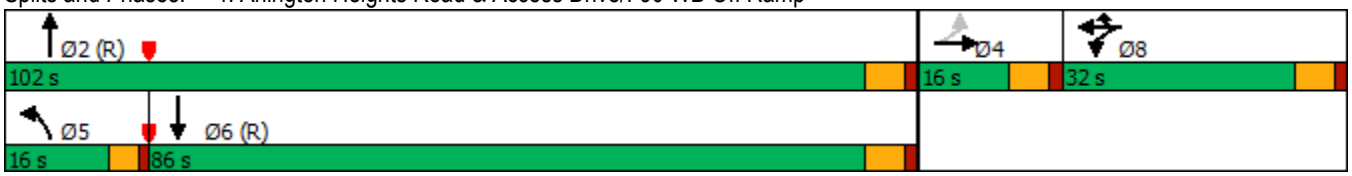


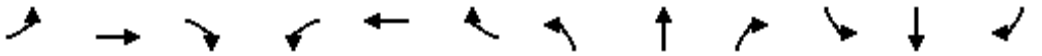
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	0	205	1	528	0	1767	0	0	1665	1
Future Volume (vph)	2	0	0	205	1	528	0	1767	0	0	1665	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	0		0	320		300	155		0	0		0
Storage Lanes	0		0	1		2	1		0	0		0
Taper Length (ft)	25			180			150			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.88	1.00	0.91	1.00	1.00	0.86	0.86
Frt						0.850						
Flt Protected		0.950		0.950	0.953							
Satd. Flow (prot)	0	1805	0	1681	1687	2814	1900	5406	0	0	6471	0
Flt Permitted				0.950	0.953							
Satd. Flow (perm)	0	1900	0	1681	1687	2814	1900	5406	0	0	6471	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		158			665			594			309	
Travel Time (s)		3.6			15.1			11.6			7.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	2%	0%	1%	0%	1%	0%	0%	1%	0%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	2	0	105	107	544	0	1822	0	0	1717	0
Turn Type	Perm	NA		Split	NA	Prot	Prot	NA			NA	
Protected Phases		4		8	8	8	5	2			6	
Permitted Phases	4											
Detector Phase	4	4		8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	3.0	15.0			15.0	
Minimum Split (s)	16.0	16.0		24.0	24.0	24.0	9.5	24.0			24.0	
Total Split (s)	16.0	16.0		32.0	32.0	32.0	16.0	102.0			86.0	
Total Split (%)	10.7%	10.7%		21.3%	21.3%	21.3%	10.7%	68.0%			57.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	3.5	4.5			4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.0	1.5			1.5	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	4.5	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None	None		None	None	None	None	C-Min			C-Min	
Act Effct Green (s)		8.1		39.1	39.1	39.1		96.0			96.0	
Actuated g/C Ratio		0.05		0.26	0.26	0.26		0.64			0.64	
v/c Ratio		0.02		0.24	0.24	0.74		0.53			0.41	
Control Delay		67.5		47.3	47.4	57.8		15.3			13.8	
Queue Delay		0.0		0.0	0.0	0.0		0.0			0.0	
Total Delay		67.5		47.3	47.4	57.8		15.3			13.8	
LOS		E		D	D	E		B			B	
Approach Delay		67.5			54.8			15.3			13.8	
Approach LOS		E			D			B			B	
Queue Length 50th (ft)		2		83	85	271		335			197	
Queue Length 95th (ft)		11		160	162	#463		372			240	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		78			585			514			229	
Turn Bay Length (ft)				320		300						
Base Capacity (vph)		126		437	439	732		3459			4141	
Starvation Cap Reductn		0		0	0	0		0			0	
Spillback Cap Reductn		0		0	0	0		0			0	
Storage Cap Reductn		0		0	0	0		0			0	
Reduced v/c Ratio		0.02		0.24	0.24	0.74		0.53			0.41	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 41 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 21.7		Intersection LOS: C	
Intersection Capacity Utilization 72.6%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Arlington Heights Road & Access Drive/I-90 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	9	0	2280	15	0	1666	518
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	9	0	2295	0	0	1666	518
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	0	0	0	0	1615	0	5171	0	0	7264	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	0.7	0.0	53.3	0.0	0.0	27.5	38.5
Adj Reference Time (s)	0.0	0.0	0.0	0.0	0.0	8.0	0.0	57.3	0.0	0.0	31.5	42.5
Permitted Option												
Adj Saturation A (vph)	0	0		0	0		0	1724		0	1816	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	53.3		0.0	27.5	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		0.0			0.0			53.3			27.5	
Adj Reference Time (s)		8.0			8.0			57.3			31.5	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	53.3		0.0	27.5	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	52.9		0.0	27.5	
Reference Time (s)	0.0	0.0		0.0	0.0		53.3	53.3		27.5	27.5	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		57.3	57.3		31.5	31.5	

Summary	EB WB	NB SB	Combined
Protected Option (s)	0.0	57.3	
Permitted Option (s)	8.0	57.3	
Split Option (s)	0.0	88.8	
Minimum (s)	0.0	57.3	57.3

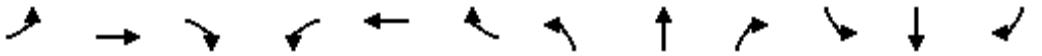
Right Turns	WBR	SBR
Adj Reference Time (s)	8.0	42.5
Cross Thru Ref Time (s)	57.3	0.0
Oncoming Left Ref Time (s)	0.0	0.0
Combined (s)	65.3	42.5

Intersection Summary			
Intersection Capacity Utilization	54.4%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Phase I Conditions

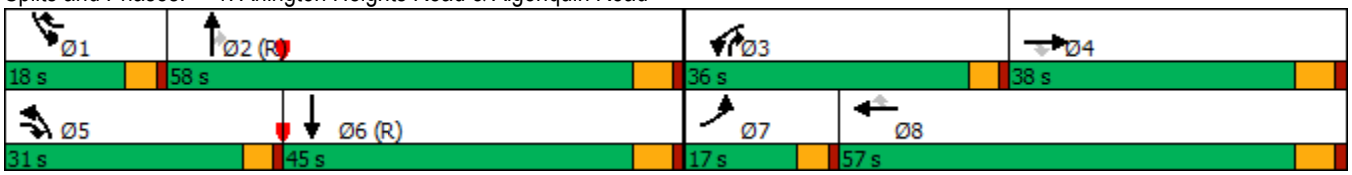


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	622	336	388	587	162	420	1056	374	139	1017	93
Future Volume (vph)	46	622	336	388	587	162	420	1056	374	139	1017	93
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	130		400	360		210	350		380	265		0
Storage Lanes	2		1	2		1	2		1	2		0
Taper Length (ft)	230			250			300			280		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.86	0.86
Frt			0.850			0.850			0.850		0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	5200	1553	3303	5056	1442	3335	5301	1495	3183	6330	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	5200	1553	3303	5056	1442	3335	5301	1495	3183	6330	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		864			394			463			944	
Travel Time (s)		13.1			6.0			9.0			18.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	5%	4%	6%	8%	12%	5%	3%	8%	10%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	635	343	396	599	165	429	1078	382	142	1133	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	
Total Split (s)	17.0	38.0	31.0	36.0	57.0	18.0	31.0	58.0	36.0	18.0	45.0	
Total Split (%)	11.3%	25.3%	20.7%	24.0%	38.0%	12.0%	20.7%	38.7%	24.0%	12.0%	30.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	7.5	32.7	62.6	24.0	51.3	68.9	23.8	60.6	90.7	11.6	48.4	
Actuated g/C Ratio	0.05	0.22	0.42	0.16	0.34	0.46	0.16	0.40	0.60	0.08	0.32	
v/c Ratio	0.28	0.56	0.53	0.75	0.35	0.25	0.81	0.50	0.42	0.58	0.55	
Control Delay	72.3	54.1	35.4	62.4	33.4	24.1	80.3	26.3	14.0	76.2	44.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	72.3	54.1	35.4	62.4	33.4	24.1	80.3	26.3	14.0	76.2	44.8	
LOS	E	D	D	E	C	C	F	C	B	E	D	
Approach Delay		48.7			42.0			36.1			48.3	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	23	201	238	198	178	118	223	226	160	70	276	
Queue Length 95th (ft)	45	248	337	188	145	104	m261	256	m188	107	334	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		784			314			383			864	
Turn Bay Length (ft)	130		400	360		210	350		380	265		
Base Capacity (vph)	280	1172	675	693	1771	680	589	2142	978	286	2042	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.17	0.54	0.51	0.57	0.34	0.24	0.73	0.50	0.39	0.50	0.55	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 58 (39%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 42.7		Intersection LOS: D	
Intersection Capacity Utilization 69.3%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Arlington Heights Road & Algonquin Road

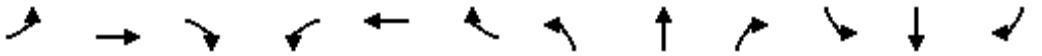


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	100	1002	32	19	927	16	56	1	18	17	1	172
Future Volume (vph)	100	1002	32	19	927	16	56	1	18	17	1	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.998			0.857			0.851	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	4833	0	1805	4751	0	1805	1315	0	1703	1601	0
Flt Permitted	0.243			0.235			0.397			0.744		
Satd. Flow (perm)	448	4833	0	446	4751	0	754	1315	0	1334	1601	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	7%	0%	0%	9%	7%	0%	0%	25%	6%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	1124	0	21	1025	0	61	21	0	18	188	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	102.0		13.0	91.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.0%	68.0%		8.7%	60.7%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	116.7	109.0		111.9	103.5		23.2	23.2		23.2	23.2	
Actuated g/C Ratio	0.78	0.73		0.75	0.69		0.15	0.15		0.15	0.15	
v/c Ratio	0.26	0.32		0.05	0.31		0.53	0.10		0.09	0.76	
Control Delay	5.8	6.5		4.3	9.6		73.5	53.1		52.7	79.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.8	6.5		4.3	9.6		73.5	53.1		52.7	79.8	
LOS	A	A		A	A		E	D		D	E	
Approach Delay		6.4			9.5			68.3			77.5	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	20	142		1	166		55	18		15	178	
Queue Length 95th (ft)	36	131		m10	116		105	43		39	257	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	528	3513		429	3279		145	254		257	309	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	0.32		0.05	0.31		0.42	0.08		0.07	0.61	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 115 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 15.4		Intersection LOS: B	
Intersection Capacity Utilization 59.5%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Tonne Road & Algonquin Road

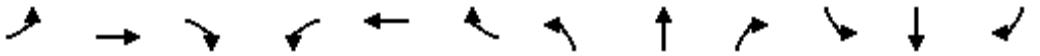


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	905	5	1	865	26	3	0	0	55	2	52
Future Volume (vph)	27	905	5	1	865	26	3	0	0	55	2	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	165		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	130			100			25			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.996						0.855	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1671	3372	0	1805	3274	0	0	1805	0	1736	1536	0
Flt Permitted	0.279			0.296				0.720		0.756		
Satd. Flow (perm)	491	3372	0	562	3274	0	0	1368	0	1381	1536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1142			483			222			765	
Travel Time (s)		17.3			7.3			6.1			20.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	8%	7%	0%	0%	10%	4%	0%	0%	0%	4%	0%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	968	0	1	948	0	0	3	0	59	57	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		18.0	18.0		18.0	18.0	
Total Split (s)	14.0	132.0		118.0	118.0		18.0	18.0		18.0	18.0	
Total Split (%)	9.3%	88.0%		78.7%	78.7%		12.0%	12.0%		12.0%	12.0%	
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		6.0	6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)	128.9	126.4		120.6	120.6			11.6		11.6	11.6	
Actuated g/C Ratio	0.86	0.84		0.80	0.80			0.08		0.08	0.08	
v/c Ratio	0.06	0.34		0.00	0.36			0.03		0.56	0.48	
Control Delay	1.6	3.7		4.0	5.0			63.7		85.9	79.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	1.6	3.7		4.0	5.0			63.7		85.9	79.5	
LOS	A	A		A	A			E		F	E	
Approach Delay		3.7			5.0			63.7			82.8	
Approach LOS		A			A			E			F	
Queue Length 50th (ft)	1	21		0	136			3		56	54	
Queue Length 95th (ft)	8	75		2	163			14		109	104	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1062			403			142			685	
Turn Bay Length (ft)	110			165						100		
Base Capacity (vph)	504	2856		452	2633			115		116	129	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.06	0.34		0.00	0.36			0.03		0.51	0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 94 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 8.8		Intersection LOS: A	
Intersection Capacity Utilization 41.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Goebbert Road & Algonquin Road

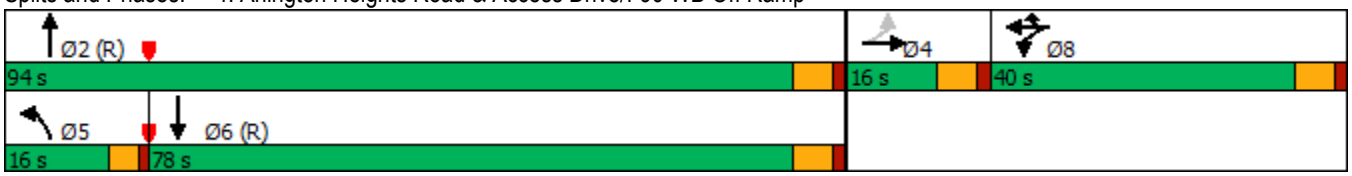


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	4	272	0	541	3	1294	0	0	1344	3
Future Volume (vph)	0	0	4	272	0	541	3	1294	0	0	1344	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	0		0	320		300	155		0	0		0
Storage Lanes	0		0	1		2	1		0	0		0
Taper Length (ft)	25			180			150			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.88	1.00	0.91	1.00	1.00	0.86	0.86
Frt		0.865				0.850						
Flt Protected				0.950	0.950		0.950					
Satd. Flow (prot)	0	1096	0	1698	1698	2760	1805	5151	0	0	6399	0
Flt Permitted				0.950	0.950		0.950					
Satd. Flow (perm)	0	1096	0	1698	1698	2760	1805	5151	0	0	6399	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		158			665			594			309	
Travel Time (s)		3.6			15.1			11.6			7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	0%	3%	0%	6%	0%	0%	2%	67%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	4	0	148	148	588	3	1407	0	0	1464	0
Turn Type		NA		Split	NA	Prot	Prot	NA			NA	
Protected Phases		4		8	8	8	5	2			6	
Permitted Phases	4											
Detector Phase	4	4		8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	3.0	15.0			15.0	
Minimum Split (s)	16.0	16.0		24.0	24.0	24.0	9.5	24.0			24.0	
Total Split (s)	16.0	16.0		40.0	40.0	40.0	16.0	94.0			78.0	
Total Split (%)	10.7%	10.7%		26.7%	26.7%	26.7%	10.7%	62.7%			52.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	3.5	4.5			4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.0	1.5			1.5	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	4.5	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None	None		None	None	None	None	C-Min			C-Min	
Act Effct Green (s)		8.1		38.6	38.6	38.6	5.9	96.4			94.2	
Actuated g/C Ratio		0.05		0.26	0.26	0.26	0.04	0.64			0.63	
v/c Ratio		0.07		0.34	0.34	0.83	0.04	0.42			0.36	
Control Delay		69.8		47.6	47.6	63.1	70.3	14.2			9.2	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay		69.8		47.6	47.6	63.1	70.3	14.2			9.2	
LOS		E		D	D	E	E	B			A	
Approach Delay		69.8			57.9			14.3			9.2	
Approach LOS		E			E			B			A	
Queue Length 50th (ft)		4		121	121	301	3	235			102	
Queue Length 95th (ft)		17		202	202	#438	15	312			148	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		78			585			514			229	
Turn Bay Length (ft)				320		300	155					
Base Capacity (vph)		73		438	438	713	138	3311			4019	
Starvation Cap Reductn		0		0	0	0	0	0			0	
Spillback Cap Reductn		0		0	0	0	0	0			0	
Storage Cap Reductn		0		0	0	0	0	0			0	
Reduced v/c Ratio		0.05		0.34	0.34	0.82	0.02	0.42			0.36	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 61 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 22.6		Intersection LOS: C	
Intersection Capacity Utilization 64.3%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Arlington Heights Road & Access Drive/I-90 WB Off Ramp



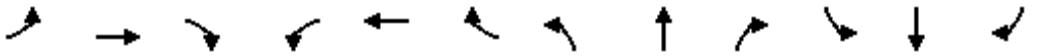
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1125	11	0	1138	0	9
Future Vol, veh/h	1125	11	0	1138	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1184	12	0	1198	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	598
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	386
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	386
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	386	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-
HCM Control Delay (s)	14.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	38	0	1812	35	0	1347	394
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	38	0	1847	0	0	1347	394
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	0	0	0	0	1615	0	5161	0	0	7264	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	2.8	0.0	42.9	0.0	0.0	22.3	29.3
Adj Reference Time (s)	0.0	0.0	0.0	0.0	0.0	8.0	0.0	46.9	0.0	0.0	26.3	33.3
Permitted Option												
Adj Saturation A (vph)	0	0		0	0		0	1720		0	1816	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	42.9		0.0	22.3	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		0.0			0.0			42.9			22.3	
Adj Reference Time (s)		8.0			8.0			46.9			26.3	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	42.9		0.0	22.3	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	42.1		0.0	22.3	
Reference Time (s)	0.0	0.0		0.0	0.0		42.9	42.9		22.3	22.3	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		46.9	46.9		26.3	26.3	

Summary	EB WB	NB SB	Combined
Protected Option (s)	0.0	46.9	
Permitted Option (s)	8.0	46.9	
Split Option (s)	0.0	73.2	
Minimum (s)	0.0	46.9	46.9

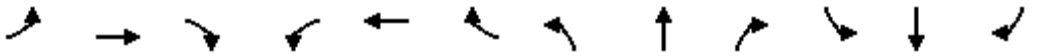
Right Turns	WBR	SBR
Adj Reference Time (s)	8.0	33.3
Cross Thru Ref Time (s)	46.9	0.0
Oncoming Left Ref Time (s)	0.0	0.0
Combined (s)	54.9	33.3

Intersection Summary			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – Phase I Conditions

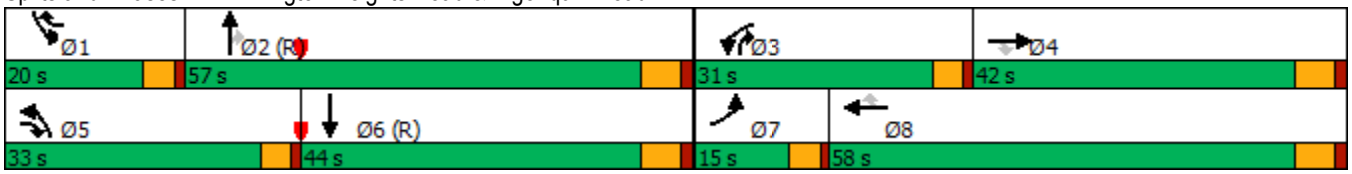


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	816	467	504	860	224	520	1334	471	239	1261	99
Future Volume (vph)	90	816	467	504	860	224	520	1334	471	239	1261	99
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	130		400	360		210	350		380	265		0
Storage Lanes	2		1	2		1	2		1	2		0
Taper Length (ft)	230			250			300			280		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.86	0.86
Frt			0.850			0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3502	5151	1615	3433	5353	1599	3467	5406	1568	3367	6400	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3502	5151	1615	3433	5353	1599	3467	5406	1568	3367	6400	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		864			394			463			944	
Travel Time (s)		13.1			6.0			9.0			18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	6%	0%	2%	2%	1%	1%	1%	3%	4%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	859	492	531	905	236	547	1404	496	252	1431	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	
Total Split (s)	15.0	42.0	33.0	31.0	58.0	20.0	33.0	57.0	31.0	20.0	44.0	
Total Split (%)	10.0%	28.0%	22.0%	20.7%	38.7%	13.3%	22.0%	38.0%	20.7%	13.3%	29.3%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	9.1	36.3	69.7	25.9	53.1	73.8	27.3	52.0	84.0	14.7	39.4	
Actuated g/C Ratio	0.06	0.24	0.46	0.17	0.35	0.49	0.18	0.35	0.56	0.10	0.26	
v/c Ratio	0.45	0.69	0.66	0.90	0.48	0.30	0.87	0.75	0.57	0.77	0.85	
Control Delay	74.4	55.1	35.9	96.6	29.8	18.6	59.0	41.7	28.4	81.7	58.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	
Total Delay	74.4	55.1	35.9	96.6	29.8	18.6	59.0	41.7	29.0	81.7	58.6	
LOS	E	E	D	F	C	B	E	D	C	F	E	
Approach Delay		49.9			49.4			43.0			62.1	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	46	283	361	285	180	100	242	473	379	125	394	
Queue Length 95th (ft)	78	334	492	m#365	205	m135	#318	529	537	175	442	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		784			314			383			864	
Turn Bay Length (ft)	130		400	360		210	350		380	265		
Base Capacity (vph)	245	1248	763	606	1896	795	658	1875	883	347	1680	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	134	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.39	0.69	0.64	0.88	0.48	0.30	0.83	0.75	0.66	0.73	0.85	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 77 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 50.3		Intersection LOS: D	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Arlington Heights Road & Algonquin Road

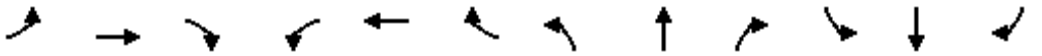


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	183	1279	35	34	1305	25	84	6	18	31	0	173
Future Volume (vph)	183	1279	35	34	1305	25	84	6	18	31	0	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.997			0.886			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	4926	0	1805	5072	0	1805	1461	0	1752	1599	0
Flt Permitted	0.151			0.170			0.374			0.741		
Satd. Flow (perm)	287	4926	0	323	5072	0	711	1461	0	1367	1599	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	0%	0%	2%	0%	0%	0%	20%	3%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	1398	0	36	1415	0	89	25	0	33	184	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	14.0	108.0		14.0	108.0		28.0	28.0		28.0	28.0	
Total Split (%)	9.3%	72.0%		9.3%	72.0%		18.7%	18.7%		18.7%	18.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	119.4	109.3		113.2	104.5		20.9	20.9		20.9	20.9	
Actuated g/C Ratio	0.80	0.73		0.75	0.70		0.14	0.14		0.14	0.14	
v/c Ratio	0.61	0.39		0.12	0.40		0.90	0.12		0.17	0.83	
Control Delay	25.0	5.2		2.6	5.8		129.4	57.4		58.7	91.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.0	5.2		2.6	5.8		129.4	57.4		58.7	91.3	
LOS	C	A		A	A		F	E		E	F	
Approach Delay		7.6			5.7			113.6			86.3	
Approach LOS		A			A			F			F	
Queue Length 50th (ft)	47	93		3	110		86	22		29	176	
Queue Length 95th (ft)	m112	126		m6	60		#197	52		64	#298	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	334	3590		356	3534		104	214		200	234	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.58	0.39		0.10	0.40		0.86	0.12		0.17	0.79	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 140 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 15.4		Intersection LOS: B	
Intersection Capacity Utilization 71.6%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Tonne Road & Algonquin Road

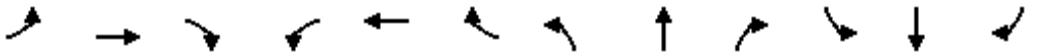


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1148	5	2	1265	83	6	1	1	57	3	46
Future Volume (vph)	59	1148	5	2	1265	83	6	1	1	57	3	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	165		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	130			100			25			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991			0.983			0.859	
Flt Protected	0.950			0.950				0.964		0.950		
Satd. Flow (prot)	1805	3435	0	1805	3509	0	0	1600	0	1805	1632	0
Flt Permitted	0.160			0.234				0.785		0.752		
Satd. Flow (perm)	304	3435	0	445	3509	0	0	1303	0	1429	1632	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1142			483			222			765	
Travel Time (s)		17.3			7.3			6.1			20.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	5%	0%	0%	2%	1%	0%	100%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	1201	0	2	1404	0	0	8	0	59	51	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		18.0	18.0		18.0	18.0	
Total Split (s)	14.0	125.0		111.0	111.0		25.0	25.0		25.0	25.0	
Total Split (%)	9.3%	83.3%		74.0%	74.0%		16.7%	16.7%		16.7%	16.7%	
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		6.0	6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)	130.7	129.4		121.5	121.5			12.6		12.6	12.6	
Actuated g/C Ratio	0.87	0.86		0.81	0.81			0.08		0.08	0.08	
v/c Ratio	0.19	0.41		0.01	0.49			0.07		0.50	0.38	
Control Delay	3.3	3.4		5.0	6.9			62.4		78.7	71.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	3.3	3.4		5.0	6.9			62.4		78.7	71.6	
LOS	A	A		A	A			E		E	E	
Approach Delay		3.4			6.9			62.4			75.4	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	9	101		0	242			7		56	48	
Queue Length 95th (ft)	18	141		3	340			25		104	92	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1062			403			142			685	
Turn Bay Length (ft)	110			165						100		
Base Capacity (vph)	369	2964		360	2841			165		181	206	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.17	0.41		0.01	0.49			0.05		0.33	0.25	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 120 (80%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 65.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Goebbert Road & Algonquin Road

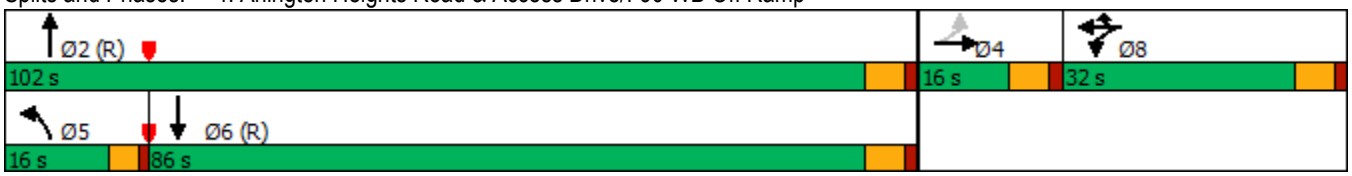


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	0	205	1	556	0	1792	0	0	1700	1
Future Volume (vph)	2	0	0	205	1	556	0	1792	0	0	1700	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	0		0	320		300	155		0	0		0
Storage Lanes	0		0	1		2	1		0	0		0
Taper Length (ft)	25			180			150			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.88	1.00	0.91	1.00	1.00	0.86	0.86
Frt						0.850						
Flt Protected		0.950		0.950	0.953							
Satd. Flow (prot)	0	1805	0	1681	1687	2814	1900	5406	0	0	6471	0
Flt Permitted				0.950	0.953							
Satd. Flow (perm)	0	1900	0	1681	1687	2814	1900	5406	0	0	6471	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		158			665			594			309	
Travel Time (s)		3.6			15.1			11.6			7.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	2%	0%	1%	0%	1%	0%	0%	1%	0%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	2	0	105	107	573	0	1847	0	0	1754	0
Turn Type	Perm	NA		Split	NA	Prot	Prot	NA			NA	
Protected Phases		4		8	8	8	5	2			6	
Permitted Phases	4											
Detector Phase	4	4		8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	3.0	15.0			15.0	
Minimum Split (s)	16.0	16.0		24.0	24.0	24.0	9.5	24.0			24.0	
Total Split (s)	16.0	16.0		32.0	32.0	32.0	16.0	102.0			86.0	
Total Split (%)	10.7%	10.7%		21.3%	21.3%	21.3%	10.7%	68.0%			57.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	3.5	4.5			4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.0	1.5			1.5	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	4.5	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None	None		None	None	None	None	C-Min			C-Min	
Act Effct Green (s)		8.1		39.1	39.1	39.1		96.0			96.0	
Actuated g/C Ratio		0.05		0.26	0.26	0.26		0.64			0.64	
v/c Ratio		0.02		0.24	0.24	0.78		0.53			0.42	
Control Delay		67.5		47.3	47.4	59.6		15.5			14.1	
Queue Delay		0.0		0.0	0.0	0.0		0.0			0.0	
Total Delay		67.5		47.3	47.4	59.6		15.5			14.1	
LOS		E		D	D	E		B			B	
Approach Delay		67.5			56.3			15.5			14.1	
Approach LOS		E			E			B			B	
Queue Length 50th (ft)		2		83	85	289		342			211	
Queue Length 95th (ft)		11		160	162	#497		379			254	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		78			585			514			229	
Turn Bay Length (ft)				320		300						
Base Capacity (vph)		126		437	439	732		3459			4141	
Starvation Cap Reductn		0		0	0	0		0			0	
Spillback Cap Reductn		0		0	0	0		0			0	
Storage Cap Reductn		0		0	0	0		0			0	
Reduced v/c Ratio		0.02		0.24	0.24	0.78		0.53			0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 41 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 22.3		Intersection LOS: C	
Intersection Capacity Utilization 74.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Arlington Heights Road & Access Drive/I-90 WB Off Ramp



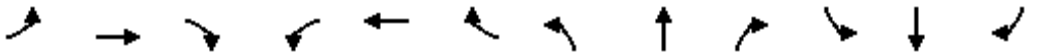
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1488	28	0	1584	0	9
Future Vol, veh/h	1488	28	0	1584	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1566	29	0	1667	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	798
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	286
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	286
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	286	-	-	-
HCM Lane V/C Ratio	0.033	-	-	-
HCM Control Delay (s)	18	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	45	0	2280	70	0	1701	529
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	45	0	2350	0	0	1701	529
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	0	0	0	0	1615	0	5152	0	0	7264	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	3.3	0.0	54.7	0.0	0.0	28.1	39.3
Adj Reference Time (s)	0.0	0.0	0.0	0.0	0.0	8.0	0.0	58.7	0.0	0.0	32.1	43.3
Permitted Option												
Adj Saturation A (vph)	0	0		0	0		0	1717		0	1816	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	54.7		0.0	28.1	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		0.0			0.0			54.7			28.1	
Adj Reference Time (s)		8.0			8.0			58.7			32.1	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	54.7		0.0	28.1	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	53.1		0.0	28.1	
Reference Time (s)	0.0	0.0		0.0	0.0		54.7	54.7		28.1	28.1	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		58.7	58.7		32.1	32.1	

Summary	EB WB	NB SB	Combined
Protected Option (s)	0.0	58.7	
Permitted Option (s)	8.0	58.7	
Split Option (s)	0.0	90.8	
Minimum (s)	0.0	58.7	58.7

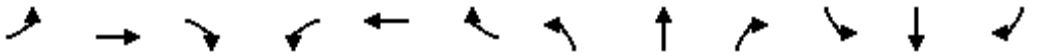
Right Turns	WBR	SBR
Adj Reference Time (s)	8.0	43.3
Cross Thru Ref Time (s)	58.7	0.0
Oncoming Left Ref Time (s)	0.0	0.0
Combined (s)	66.7	43.3

Intersection Summary			
Intersection Capacity Utilization	55.6%	ICU Level of Service	B

Reference Times and Phasing Options do not represent an optimized timing plan.

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Total Buildout Conditions

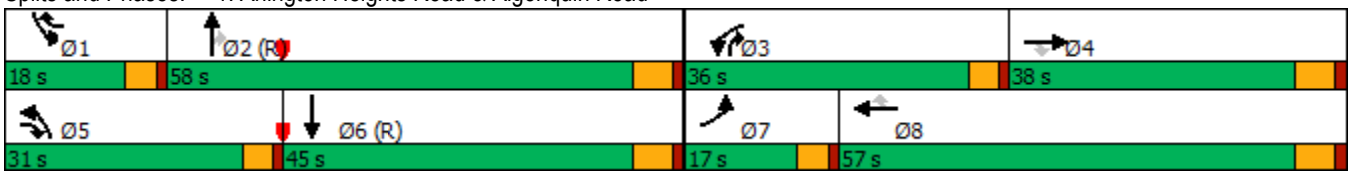


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	681	336	503	609	162	456	1114	374	198	1017	93
Future Volume (vph)	46	681	336	503	609	162	456	1114	374	198	1017	93
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	130		400	360		210	350		380	265		0
Storage Lanes	2		1	2		1	2		1	2		0
Taper Length (ft)	230			250			300			280		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.86	0.86
Frt			0.850			0.850			0.850		0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	5200	1553	3303	5056	1442	3335	5301	1495	3183	6330	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	5200	1553	3303	5056	1442	3335	5301	1495	3183	6330	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		864			394			463			944	
Travel Time (s)		13.1			6.0			9.0			18.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	5%	4%	6%	8%	12%	5%	3%	8%	10%	2%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	695	343	513	621	165	465	1137	382	202	1133	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	
Total Split (s)	17.0	38.0	31.0	36.0	57.0	18.0	31.0	58.0	36.0	18.0	45.0	
Total Split (%)	11.3%	25.3%	20.7%	24.0%	38.0%	12.0%	20.7%	38.7%	24.0%	12.0%	30.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	7.5	32.5	63.3	28.2	55.2	74.0	24.9	55.5	89.7	12.9	43.5	
Actuated g/C Ratio	0.05	0.22	0.42	0.19	0.37	0.49	0.17	0.37	0.60	0.09	0.29	
v/c Ratio	0.28	0.62	0.52	0.83	0.33	0.23	0.84	0.58	0.43	0.74	0.62	
Control Delay	72.3	55.9	35.3	64.8	27.8	19.6	82.0	29.5	14.0	83.6	48.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	72.3	55.9	35.3	64.8	27.8	19.6	82.0	29.5	14.0	83.6	48.8	
LOS	E	E	D	E	C	B	F	C	B	F	D	
Approach Delay		50.1			41.4			38.8			54.0	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	23	223	236	211	140	72	242	246	156	100	292	
Queue Length 95th (ft)	45	275	342	m268	m173	m123	287	276	194	146	334	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		784			314			383			864	
Turn Bay Length (ft)	130		400	360		210	350		380	265		
Base Capacity (vph)	280	1143	672	693	1859	717	589	1960	926	286	1834	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.17	0.61	0.51	0.74	0.33	0.23	0.79	0.58	0.41	0.71	0.62	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 58 (39%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 45.1		Intersection LOS: D	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Arlington Heights Road & Algonquin Road

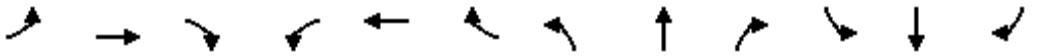


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	100	999	145	79	927	16	193	1	78	17	1	172
Future Volume (vph)	100	999	145	79	927	16	193	1	78	17	1	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.998			0.852			0.851	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	4795	0	1805	4751	0	1805	1298	0	1703	1601	0
Flt Permitted	0.238			0.183			0.501			0.701		
Satd. Flow (perm)	439	4795	0	348	4751	0	952	1298	0	1257	1601	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	7%	0%	0%	9%	7%	0%	0%	25%	6%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	1244	0	86	1025	0	210	86	0	18	188	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	102.0		13.0	91.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.0%	68.0%		8.7%	60.7%		23.3%	23.3%		23.3%	23.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	103.2	92.5		101.8	91.9		34.5	34.5		34.5	34.5	
Actuated g/C Ratio	0.69	0.62		0.68	0.61		0.23	0.23		0.23	0.23	
v/c Ratio	0.29	0.42		0.28	0.35		0.96	0.29		0.06	0.51	
Control Delay	7.5	11.4		7.4	11.8		108.6	54.2		50.5	58.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.5	11.4		7.4	11.8		108.6	54.2		50.5	58.8	
LOS	A	B		A	B		F	D		D	E	
Approach Delay		11.1			11.4			92.8			58.1	
Approach LOS		B			B			F			E	
Queue Length 50th (ft)	22	120		17	96		~239	74		15	170	
Queue Length 95th (ft)	m32	147		28	108		#410	130		39	257	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	489	3114		333	2998		219	298		289	367	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.22	0.40		0.26	0.34		0.96	0.29		0.06	0.51	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 115 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 66.6%	ICU Level of Service C
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: Tonne Road & Algonquin Road

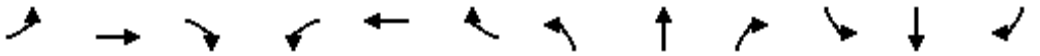


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	1348	5	1	1079	26	3	0	0	55	2	50
Future Volume (vph)	27	1348	5	1	1079	26	3	0	0	55	2	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	165		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	130			100			25			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.996						0.855	
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1671	3371	0	1805	3273	0	0	1805	0	1736	1536	0
Flt Permitted	0.215			0.179				0.721		0.756		
Satd. Flow (perm)	378	3371	0	340	3273	0	0	1370	0	1381	1536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1142			483			222			765	
Travel Time (s)		17.3			7.3			6.1			20.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	8%	7%	0%	0%	10%	4%	0%	0%	0%	4%	0%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	1439	0	1	1176	0	0	3	0	59	55	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		18.0	18.0		18.0	18.0	
Total Split (s)	14.0	132.0		118.0	118.0		18.0	18.0		18.0	18.0	
Total Split (%)	9.3%	88.0%		78.7%	78.7%		12.0%	12.0%		12.0%	12.0%	
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		6.0	6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)	129.6	127.1		121.4	121.4			10.9		10.9	10.9	
Actuated g/C Ratio	0.86	0.85		0.81	0.81			0.07		0.07	0.07	
v/c Ratio	0.08	0.50		0.00	0.44			0.03		0.59	0.50	
Control Delay	1.8	4.8		4.0	5.3			64.7		90.6	81.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	1.8	4.8		4.0	5.3			64.7		90.6	81.9	
LOS	A	A		A	A			E		F	F	
Approach Delay		4.7			5.3			64.7			86.4	
Approach LOS		A			A			E			F	
Queue Length 50th (ft)	4	158		0	183			3		57	52	
Queue Length 95th (ft)	7	139		2	221			14		109	102	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1062			403			142			685	
Turn Bay Length (ft)	110			165						100		
Base Capacity (vph)	417	2855		275	2648			109		110	122	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.07	0.50		0.00	0.44			0.03		0.54	0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 94 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 8.4		Intersection LOS: A	
Intersection Capacity Utilization 54.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Goebbert Road & Algonquin Road

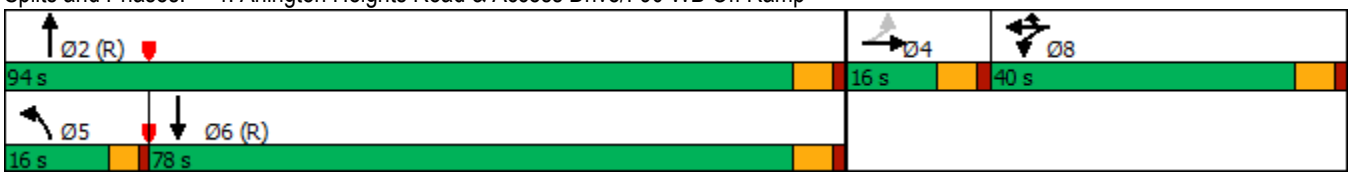


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	4	272	0	599	3	1366	0	0	1430	3
Future Volume (vph)	0	0	4	272	0	599	3	1366	0	0	1430	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	0		0	320		300	155		0	0		0
Storage Lanes	0		0	1		2	1		0	0		0
Taper Length (ft)	25			180			150			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.88	1.00	0.91	1.00	1.00	0.86	0.86
Frt		0.865				0.850						
Flt Protected				0.950	0.950		0.950					
Satd. Flow (prot)	0	1096	0	1698	1698	2760	1805	5151	0	0	6400	0
Flt Permitted				0.950	0.950		0.950					
Satd. Flow (perm)	0	1096	0	1698	1698	2760	1805	5151	0	0	6400	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		158			665			594			309	
Travel Time (s)		3.6			15.1			11.6			7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	0%	3%	0%	6%	0%	0%	2%	67%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	4	0	148	148	651	3	1485	0	0	1557	0
Turn Type		NA		Split	NA	Prot	Prot	NA			NA	
Protected Phases		4		8	8	8	5	2			6	
Permitted Phases	4											
Detector Phase	4	4		8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	3.0	15.0			15.0	
Minimum Split (s)	16.0	16.0		24.0	24.0	24.0	9.5	24.0			24.0	
Total Split (s)	16.0	16.0		40.0	40.0	40.0	16.0	94.0			78.0	
Total Split (%)	10.7%	10.7%		26.7%	26.7%	26.7%	10.7%	62.7%			52.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	3.5	4.5			4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.0	1.5			1.5	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	4.5	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None	None		None	None	None	None	C-Min			C-Min	
Act Effct Green (s)		8.1		45.3	45.3	45.3	5.9	89.8			87.6	
Actuated g/C Ratio		0.05		0.30	0.30	0.30	0.04	0.60			0.58	
v/c Ratio		0.07		0.29	0.29	0.78	0.04	0.48			0.42	
Control Delay		69.8		43.0	43.0	55.3	70.3	17.8			13.0	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay		69.8		43.0	43.0	55.3	70.3	17.8			13.0	
LOS		E		D	D	E	E	B			B	
Approach Delay		69.8			51.5			17.9			13.0	
Approach LOS		E			D			B			B	
Queue Length 50th (ft)		4		113	113	323	3	284			134	
Queue Length 95th (ft)		17		202	202	#514	15	335			177	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		78			585			514			229	
Turn Bay Length (ft)				320		300	155					
Base Capacity (vph)		73		512	512	833	138	3082			3736	
Starvation Cap Reductn		0		0	0	0	0	0			0	
Spillback Cap Reductn		0		0	0	0	0	0			0	
Storage Cap Reductn		0		0	0	0	0	0			0	
Reduced v/c Ratio		0.05		0.29	0.29	0.78	0.02	0.48			0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 61 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 67.7%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Arlington Heights Road & Access Drive/I-90 WB Off Ramp



Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1234	20	0	1217	0	10
Future Vol, veh/h	1234	20	0	1217	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1299	21	0	1281	0	11

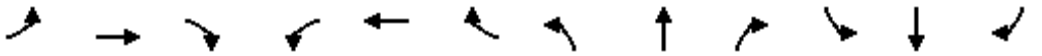
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	660
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	352
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	352
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	352	-	-	-
HCM Lane V/C Ratio	0.031	-	-	-
HCM Control Delay (s)	15.6	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection Capacity Utilization
5: Arlington Heights Road & I-90 WB On Ramp/Right-In/Right-Out Access Drive

08/25/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	136	0	1808	157	0	1433	423
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	136	0	1965	0	0	1433	423
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	0	0	0	0	1615	0	5114	0	0	7264	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	10.1	0.0	46.1	0.0	0.0	23.7	31.4
Adj Reference Time (s)	0.0	0.0	0.0	0.0	0.0	14.1	0.0	50.1	0.0	0.0	27.7	35.4
Permitted Option												
Adj Saturation A (vph)	0	0		0	0		0	1705		0	1816	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	46.1		0.0	23.7	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		0.0			0.0			46.1			23.7	
Adj Reference Time (s)		8.0			8.0			50.1			27.7	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	46.1		0.0	23.7	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	42.4		0.0	23.7	
Reference Time (s)	0.0	0.0		0.0	0.0		46.1	46.1		23.7	23.7	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		50.1	50.1		27.7	27.7	

Summary	EB WB	NB SB	Combined
Protected Option (s)	0.0	50.1	
Permitted Option (s)	8.0	50.1	
Split Option (s)	0.0	77.8	
Minimum (s)	0.0	50.1	50.1

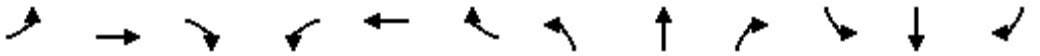
Right Turns	WBR	SBR
Adj Reference Time (s)	14.1	35.4
Cross Thru Ref Time (s)	50.1	0.0
Oncoming Left Ref Time (s)	0.0	0.0
Combined (s)	64.2	35.4

Intersection Summary			
Intersection Capacity Utilization	53.5%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – Total Buildout Conditions



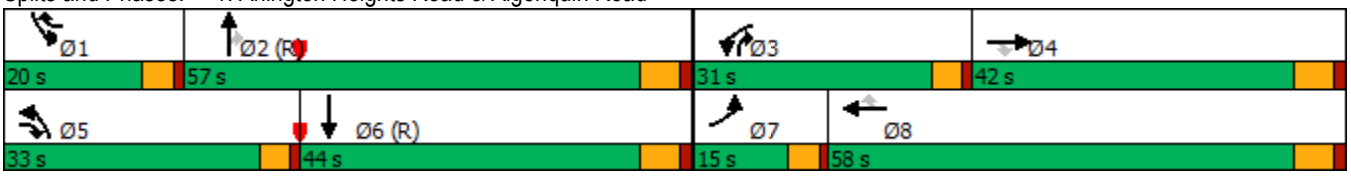
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	867	467	654	884	224	572	1411	471	280	1261	99
Future Volume (vph)	90	867	467	654	884	224	572	1411	471	280	1261	99
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	130		400	360		210	350		380	265		0
Storage Lanes	2		1	2		1	2		1	2		0
Taper Length (ft)	230			250			300			280		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.86	0.86
Frt			0.850			0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3502	5151	1615	3433	5353	1599	3467	5406	1568	3367	6229	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3502	5151	1615	3433	5353	1599	3467	5406	1568	3367	6229	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		864			394			463			944	
Travel Time (s)		13.1			6.0			9.0			18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	6%	0%	2%	2%	1%	1%	1%	3%	4%	4%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	913	492	688	931	236	602	1485	496	295	1431	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	9.5	9.5	24.0	
Total Split (s)	15.0	42.0	33.0	31.0	58.0	20.0	33.0	57.0	31.0	20.0	44.0	
Total Split (%)	10.0%	28.0%	22.0%	20.7%	38.7%	13.3%	22.0%	38.0%	20.7%	13.3%	29.3%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	4.5	4.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	
Act Effct Green (s)	9.1	36.0	70.2	26.5	53.4	74.6	28.2	51.2	83.7	15.3	38.3	
Actuated g/C Ratio	0.06	0.24	0.47	0.18	0.36	0.50	0.19	0.34	0.56	0.10	0.26	
v/c Ratio	0.45	0.74	0.65	1.14	0.49	0.30	0.92	0.80	0.57	0.86	0.90	
Control Delay	74.4	56.9	35.5	138.0	29.5	18.7	66.2	44.5	28.6	90.0	62.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	
Total Delay	74.4	56.9	35.5	138.0	29.5	18.7	66.2	44.5	29.2	90.0	62.6	
LOS	E	E	D	F	C	B	E	D	C	F	E	
Approach Delay		51.0			68.4			46.6			67.3	
Approach LOS		D			E			D			E	
Queue Length 50th (ft)	46	304	361	~413	204	115	279	507	378	148	397	
Queue Length 95th (ft)	78	358	492	m#459	m212	m141	m#397	565	m527	#225	445	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		784			314			383			864	
Turn Bay Length (ft)	130		400	360		210	350		380	265		
Base Capacity (vph)	245	1236	759	606	1904	797	658	1847	875	347	1591	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	138	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.39	0.74	0.65	1.14	0.49	0.30	0.91	0.80	0.67	0.85	0.90	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 77 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 57.4 Intersection LOS: E
Intersection Capacity Utilization 88.3% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Arlington Heights Road & Algonquin Road

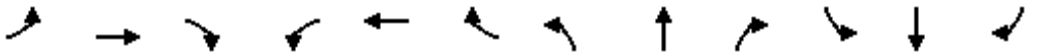


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	183	1274	156	86	1305	25	261	6	100	31	0	173
Future Volume (vph)	183	1274	156	86	1305	25	261	6	100	31	0	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.997			0.858			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	4886	0	1805	5072	0	1805	1371	0	1752	1599	0
Flt Permitted	0.152			0.140			0.391			0.607		
Satd. Flow (perm)	289	4886	0	266	5072	0	743	1371	0	1120	1599	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	0%	0%	2%	0%	0%	0%	20%	3%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	1521	0	91	1415	0	278	112	0	33	184	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	14.0	108.0		14.0	108.0		28.0	28.0		28.0	28.0	
Total Split (%)	9.3%	72.0%		9.3%	72.0%		18.7%	18.7%		18.7%	18.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	117.0	105.4		113.0	103.3		22.0	22.0		22.0	22.0	
Actuated g/C Ratio	0.78	0.70		0.75	0.69		0.15	0.15		0.15	0.15	
v/c Ratio	0.61	0.44		0.33	0.40		2.57	0.56		0.20	0.79	
Control Delay	24.6	5.6		5.7	6.2		758.5	71.1		59.9	84.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.6	5.6		5.7	6.2		758.5	71.1		59.9	84.8	
LOS	C	A		A	A		F	E		E	F	
Approach Delay		7.7			6.2			561.1			81.0	
Approach LOS		A			A			F			F	
Queue Length 50th (ft)	45	97		8	110		~453	103		29	176	
Queue Length 95th (ft)	m93	130		13	63		#642	172		64	#298	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	333	3432		314	3494		108	201		164	234	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.59	0.44		0.29	0.40		2.57	0.56		0.20	0.79	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 140 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.57			
Intersection Signal Delay: 67.6		Intersection LOS: E	
Intersection Capacity Utilization 79.4%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Tonne Road & Algonquin Road

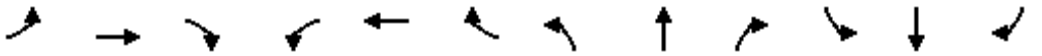


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1190	5	2	1290	83	6	1	1	57	3	46
Future Volume (vph)	59	1190	5	2	1290	83	6	1	1	57	3	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	165		0	0		0	100		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	130			100			25			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991			0.983			0.859	
Flt Protected	0.950			0.950				0.964		0.950		
Satd. Flow (prot)	1805	3435	0	1805	3509	0	0	1600	0	1805	1632	0
Flt Permitted	0.155			0.224				0.785		0.752		
Satd. Flow (perm)	294	3435	0	426	3509	0	0	1303	0	1429	1632	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1142			483			222			765	
Travel Time (s)		17.3			7.3			6.1			20.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	5%	0%	0%	2%	1%	0%	100%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	1245	0	2	1430	0	0	8	0	59	51	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		18.0	18.0		18.0	18.0	
Total Split (s)	14.0	125.0		111.0	111.0		25.0	25.0		25.0	25.0	
Total Split (%)	9.3%	83.3%		74.0%	74.0%		16.7%	16.7%		16.7%	16.7%	
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		6.0	6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)	130.7	129.4		121.5	121.5			12.6		12.6	12.6	
Actuated g/C Ratio	0.87	0.86		0.81	0.81			0.08		0.08	0.08	
v/c Ratio	0.19	0.42		0.01	0.50			0.07		0.50	0.38	
Control Delay	3.3	3.0		5.0	7.0			62.4		78.7	71.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	3.3	3.0		5.0	7.0			62.4		78.7	71.6	
LOS	A	A		A	A			E		E	E	
Approach Delay		3.0			7.0			62.4			75.4	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	10	112		0	248			7		56	48	
Queue Length 95th (ft)	m18	148		3	351			25		104	92	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1062			403			142			685	
Turn Bay Length (ft)	110			165						100		
Base Capacity (vph)	361	2964		345	2841			165		181	206	
Starvation Cap Reductn	0	0		0	0			0		0	0	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.17	0.42		0.01	0.50			0.05		0.33	0.25	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 120 (80%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 8.0		Intersection LOS: A	
Intersection Capacity Utilization 65.7%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Goebbert Road & Algonquin Road

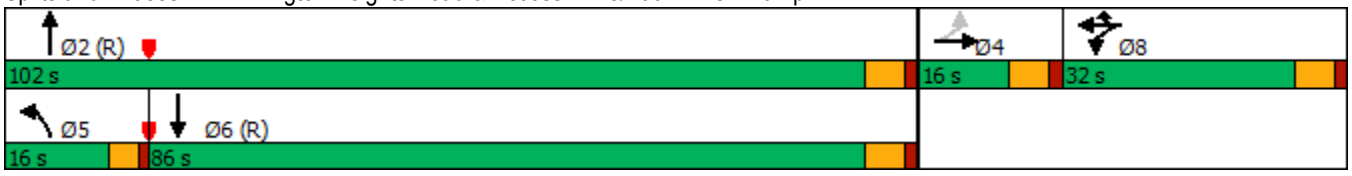


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	0	205	1	607	0	1845	0	0	1813	1
Future Volume (vph)	2	0	0	205	1	607	0	1845	0	0	1813	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Storage Length (ft)	0		0	320		300	155		0	0		0
Storage Lanes	0		0	1		2	1		0	0		0
Taper Length (ft)	25			180			150			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.88	1.00	0.91	1.00	1.00	0.86	0.86
Frt						0.850						
Flt Protected		0.950		0.950	0.953							
Satd. Flow (prot)	0	1805	0	1681	1687	2814	1900	5406	0	0	6471	0
Flt Permitted				0.950	0.953							
Satd. Flow (perm)	0	1900	0	1681	1687	2814	1900	5406	0	0	6471	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		158			665			594			309	
Travel Time (s)		3.6			15.1			11.6			7.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	2%	0%	1%	0%	1%	0%	0%	1%	0%
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	2	0	105	107	626	0	1902	0	0	1870	0
Turn Type	Perm	NA		Split	NA	Prot	Prot	NA			NA	
Protected Phases		4		8	8	8	5	2			6	
Permitted Phases	4											
Detector Phase	4	4		8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	3.0	15.0			15.0	
Minimum Split (s)	16.0	16.0		24.0	24.0	24.0	9.5	24.0			24.0	
Total Split (s)	16.0	16.0		32.0	32.0	32.0	16.0	102.0			86.0	
Total Split (%)	10.7%	10.7%		21.3%	21.3%	21.3%	10.7%	68.0%			57.3%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	3.5	4.5			4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.0	1.5			1.5	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	4.5	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None	None		None	None	None	None	C-Min			C-Min	
Act Effct Green (s)		8.1		39.1	39.1	39.1		96.0			96.0	
Actuated g/C Ratio		0.05		0.26	0.26	0.26		0.64			0.64	
v/c Ratio		0.02		0.24	0.24	0.86		0.55			0.45	
Control Delay		67.5		47.3	47.4	64.5		15.7			16.4	
Queue Delay		0.0		0.0	0.0	0.0		0.0			0.0	
Total Delay		67.5		47.3	47.4	64.5		15.7			16.4	
LOS		E		D	D	E		B			B	
Approach Delay		67.5			60.1			15.7			16.4	
Approach LOS		E			E			B			B	
Queue Length 50th (ft)		2		83	85	323		358			263	
Queue Length 95th (ft)		11		160	162	#562		396			m281	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		78			585			514			229	
Turn Bay Length (ft)				320		300						
Base Capacity (vph)		126		437	439	732		3459			4141	
Starvation Cap Reductn		0		0	0	0		0			0	
Spillback Cap Reductn		0		0	0	0		0			0	
Storage Cap Reductn		0		0	0	0		0			0	
Reduced v/c Ratio		0.02		0.24	0.24	0.86		0.55			0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 41 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 24.1		Intersection LOS: C	
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 4: Arlington Heights Road & Access Drive/I-90 WB Off Ramp



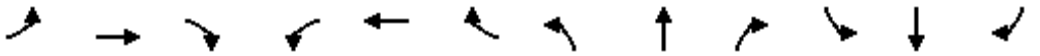
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1598	15	0	1696	0	15
Future Vol, veh/h	1598	15	0	1696	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1682	16	0	1785	0	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	849
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	-	-	0	-	0	265
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	265
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	265	-	-	-
HCM Lane V/C Ratio	0.06	-	-	-
HCM Control Delay (s)	19.4	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	185	0	2269	185	0	1814	568
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	0	185	0	2454	0	0	1814	568
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	0	0	0	0	1615	0	5117	0	0	7264	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			Yes			Yes	
Reference Time (s)	0.0	0.0	0.0	0.0	0.0	13.7	0.0	57.5	0.0	0.0	30.0	42.2
Adj Reference Time (s)	0.0	0.0	0.0	0.0	0.0	17.7	0.0	61.5	0.0	0.0	34.0	46.2
Permitted Option												
Adj Saturation A (vph)	0	0		0	0		0	1706		0	1816	
Reference Time A (s)	0.0	0.0		0.0	0.0		0.0	57.5		0.0	30.0	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		0.0			0.0			57.5			30.0	
Adj Reference Time (s)		8.0			8.0			61.5			34.0	
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.0		0.0	57.5		0.0	30.0	
Ref Time Seperate (s)	0.0	0.0		0.0	0.0		0.0	53.2		0.0	30.0	
Reference Time (s)	0.0	0.0		0.0	0.0		57.5	57.5		30.0	30.0	
Adj Reference Time (s)	0.0	0.0		0.0	0.0		61.5	61.5		34.0	34.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	0.0	61.5	
Permitted Option (s)	8.0	61.5	
Split Option (s)	0.0	95.5	
Minimum (s)	0.0	61.5	61.5

Right Turns	WBR	SBR
Adj Reference Time (s)	17.7	46.2
Cross Thru Ref Time (s)	61.5	0.0
Oncoming Left Ref Time (s)	0.0	0.0
Combined (s)	79.3	46.2

Intersection Summary			
Intersection Capacity Utilization	66.1%	ICU Level of Service	C

Reference Times and Phasing Options do not represent an optimized timing plan.

Algonquin Road with Tonne Road Intersection – Traffic Signal Modifications and Improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	183	1279	35	34	1305	25	84	6	18	31	0	173
Future Volume (vph)	183	1279	35	34	1305	25	84	6	18	31	0	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.997			0.886			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	4926	0	1805	5072	0	1805	1461	0	1752	1599	0
Flt Permitted	0.145			0.165			0.451			0.741		
Satd. Flow (perm)	276	4926	0	314	5072	0	857	1461	0	1367	1599	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								19			162	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	5%	0%	0%	2%	0%	0%	0%	20%	3%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	1398	0	36	1415	0	89	25	0	33	184	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	14.0	103.0		14.0	103.0		33.0	33.0		33.0	33.0	
Total Split (%)	9.3%	68.7%		9.3%	68.7%		22.0%	22.0%		22.0%	22.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min		None	C-Min		Max	Max		None	None	
Act Effct Green (s)	113.4	103.1		106.7	98.0		27.0	27.0		27.0	27.0	
Actuated g/C Ratio	0.76	0.69		0.71	0.65		0.18	0.18		0.18	0.18	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.64	0.41		0.13	0.43		0.58	0.09		0.13	0.44	
Control Delay	30.4	6.9		3.9	8.6		72.6	25.0		53.5	14.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	30.4	6.9		3.9	8.6		72.6	25.0		53.5	14.1	
LOS	C	A		A	A		E	C		D	B	
Approach Delay		9.8			8.5			62.1			20.1	
Approach LOS		A			A			E			C	
Queue Length 50th (ft)	51	109		4	174		81	5		28	18	
Queue Length 95th (ft)	m136	142		m8	80		147	33		61	91	
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	315	3385		336	3312		154	278		246	420	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.62	0.41		0.11	0.43		0.58	0.09		0.13	0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 140 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 11.7		Intersection LOS: B	
Intersection Capacity Utilization 71.6%		ICU Level of Service C	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tonne Road & Algonquin Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	100	999	145	79	927	16	193	1	78	17	1	172
Future Volume (vph)	100	999	145	79	927	16	193	1	78	17	1	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	2		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.981			0.998			0.852			0.851	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	4795	0	1805	4751	0	3502	1298	0	1703	1601	0
Flt Permitted	0.238			0.183			0.950			0.950		
Satd. Flow (perm)	439	4795	0	348	4751	0	3502	1298	0	1703	1601	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								85			187	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	7%	0%	0%	9%	7%	0%	0%	25%	6%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	1244	0	86	1025	0	210	86	0	18	188	0
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	8.0		5.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	20.0		9.5	20.0	
Total Split (s)	24.0	99.0		13.0	88.0		18.0	20.0		18.0	20.0	
Total Split (%)	16.0%	66.0%		8.7%	58.7%		12.0%	13.3%		12.0%	13.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		4.5	6.0		4.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		Max	None		None	None	
Act Effct Green (s)	104.8	94.2		103.4	93.5		18.7	25.3		7.2	9.6	
Actuated g/C Ratio	0.70	0.63		0.69	0.62		0.12	0.17		0.05	0.06	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.29	0.41		0.28	0.35		0.48	0.30		0.22	0.68	
Control Delay	7.3	11.6		7.3	11.4		67.7	14.7		74.5	21.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.3	11.6		7.3	11.4		67.7	14.7		74.5	21.3	
LOS	A	B		A	B		E	B		E	C	
Approach Delay		11.3			11.1			52.3			25.9	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	20	126		18	104		104	1		17	1	
Queue Length 95th (ft)	m38	167		31	117		150	55		45	78	
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	494	3119		336	3003		437	289		153	318	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.22	0.40		0.26	0.34		0.48	0.30		0.12	0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 115 (77%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 16.3		Intersection LOS: B	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tonne Road & Algonquin Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	183	1274	156	86	1305	25	261	6	100	31	0	173
Future Volume (vph)	183	1274	156	86	1305	25	261	6	100	31	0	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	180		0	100		0	86		0
Storage Lanes	1		0	1		0	2		0	1		0
Taper Length (ft)	155			180			80			63		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.984			0.997			0.858			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	4886	0	1805	5072	0	3502	1371	0	1752	1599	0
Flt Permitted	0.141			0.129			0.950			0.950		
Satd. Flow (perm)	268	4886	0	245	5072	0	3502	1371	0	1752	1599	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								106			142	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		397			546			255			409	
Travel Time (s)		6.0			8.3			5.8			11.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	5%	0%	0%	2%	0%	0%	0%	20%	3%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	1521	0	91	1415	0	278	112	0	33	184	0
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		5.0	8.0		5.0	8.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	18.0		9.5	17.0	
Total Split (s)	14.0	97.0		14.0	97.0		22.0	18.0		21.0	17.0	
Total Split (%)	9.3%	64.7%		9.3%	64.7%		14.7%	12.0%		14.0%	11.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		4.5	6.0		4.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		Max	None		None	None	
Act Effct Green (s)	107.3	95.0		103.1	93.0		17.5	21.0		8.3	9.8	
Actuated g/C Ratio	0.72	0.63		0.69	0.62		0.12	0.14		0.06	0.07	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.67	0.49		0.37	0.45		0.68	0.40		0.34	0.78	
Control Delay	33.9	9.6		9.7	11.2		72.8	16.2		77.0	40.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	33.9	9.6		9.7	11.2		72.8	16.2		77.0	40.5	
LOS	C	A		A	B		E	B		E	D	
Approach Delay		12.4			11.1			56.6			46.1	
Approach LOS		B			B			E			D	
Queue Length 50th (ft)	65	139		15	240		136	5		32	40	
Queue Length 95th (ft)	m132	167		24	134		188	67		68	#146	
Internal Link Dist (ft)		317			466			175			329	
Turn Bay Length (ft)	100			180			100			86		
Base Capacity (vph)	300	3095		282	3143		408	283		192	248	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.65	0.49		0.32	0.45		0.68	0.40		0.17	0.74	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 140 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 18.3		Intersection LOS: B	
Intersection Capacity Utilization 71.1%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Tonne Road & Algonquin Road